

# Final

# 2014 Site Management Plan

# Naval Station Treasure Island San Francisco, California

**December 23, 2014** 

## Prepared for:

Base Realignment and Closure Program Management Office West Naval Facilities Engineering Command San Diego, California

#### Prepared by:

TriEco-Tt, a Joint Venture of TriEco LLC and Tetra Tech EM Inc.
1230 Columbia Street, Suite 1000
San Diego, California 92101

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# 2014 Site Management Plan Naval Station Treasure Island San Francisco, California

# **Contract Number N62473-11-D-2205**

# Prepared for: DEPARTMENT OF THE NAVY

REVIEW AND AP	PROVAL		
Project Manager:	Massie Plak Marcie Rash, TriEco-Tt	Date: _	December 23, 2014

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### **ACRONYMS AND ABBREVIATIONS**

ACM Asbestos-containing material AST Aboveground storage tank ATG Allied Technology Group, Inc.

Bay San Francisco Bay

Bay Bridge San Francisco-Oakland Bay Bridge

BCT Base Realignment and Closure Cleanup Team

BRAC Base Realignment and Closure

Cal/EPA California Environmental Protection Agency
Caltrans California Department of Transportation

CAP Corrective action plan

CDPH California Department of Public Health

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

COC Contaminant of concern CRP Community relations plan

d Business day

DDT Dichlorodiphenyltrichloroethane

DTSC Department of Toxic Substances Control

EBS Environmental baseline survey

ed Elapsed day

EE/CA Engineering evaluation/cost analysis
EPA U.S. Environmental Protection Agency

ERM West Environmental Resources Management West, Inc.

ESD Explanation of Significant Differences

FFS Focused feasibility study

FFSRA Federal Facility Site Remediation Agreement

FHWA Federal Highway Administration FOSL Finding of suitability to lease FOST Finding of suitability to transfer

FS Feasibility study FSS Final status survey

GPR Ground-penetrating radar

HHRA Human health risk assessment HRA Historical radiological assessment

HRASTM Historical radiological assessment supplemental technical memorandum

HUD U.S. Department of Housing and Urban Development

IC Institutional control IR Installation Restoration

# **ACRONYMS AND ABBREVIATIONS (CONTINUED)**

LBP Lead-based paint

LLRO Low-level radiological object LLRW Low-level radiological waste

LUC Land use control

MARSSIM Multi-Agency Radiation Survey and Site Investigation Manual

N/A Not applicable

NAVSTA TI Naval Station Treasure Island
Navy Department of the Navy

NFA No further action

NTCRA Non-time-critical removal action

OWS Oil-water separator

PA Preliminary assessment

PAH Polycyclic aromatic hydrocarbon

PCB Polychlorinated biphenyl

PCE Tetrachloroethene (or perchloroethene)
PCSR Post construction summary report
PFOS Perfluorooctane-sulfonic acid

PP Proposed plan

RA Remedial action

RAB Restoration Advisory Board

RACR Remedial action completion report

RAD Radiological

RAP Remedial action plan

RASO Radiological Affairs Support Office

RAWP Removal action work plan
RCA Radiologically controlled area

RD Remedial design
RI Remedial investigation
ROD Record of decision
RTC Response to comments

RURR Recommedation for Unrestricted Radioligical Release

SFUSD San Francisco Unified School District

Shaw Environmental, Inc.

SI Site inspection

SLERA Screening-level ecological risk assessment

SSPORTS Supervisor of Shipbuilding, Conversion, and Repair, Portsmouth, Virginia,

Environmental Detachment, Vallejo

SVOC Semivolatile organic compound

SWDA Solid waste disposal area

# **ACRONYMS AND ABBREVIATIONS (CONTINUED)**

TBD To be determined
TCE Trichloroethene
Tetra Tech Tetra Tech EM Inc.
TI Treasure Island

TIDA Treasure Island Development Authority

TPH Total petroleum hydrocarbon
TSCA Toxic Substances Control Act

USC United States Code
USCG U.S. Coast Guard

UST Underground storage tank

VOC Volatile organic compound

Water Board Cal/EPA San Francisco Bay Regional Water Quality Control Board

WWII World War II

WWTP Wastewater treatment plant

YBI Yerba Buena Island

### 1.0 INTRODUCTION

This document is the annual update to the Naval Station Treasure Island (NAVSTA TI) Environmental Site Management Plan. The plan provides (1) the annual status of the strategies for the ongoing basewide environmental programs, and (2) an update to the schedules presented in the 1992 Federal Facility Site Remediation Agreement (FFSRA) for NAVSTA TI. The schedules included in this document support the Joint California Execution Plan for NAVSTA TI, and the State's use of the EnviroStor deliverable tracking system, which is updated annually by the California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC) with input from the Department of the Navy. This plan reflects the Navy's current site-specific strategies and schedules to achieve site closure in a manner that is consistent with state and federal environmental requirements. The applicable environmental requirements are in programs that include the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Program, the Petroleum Program, the Polychlorinated Biphenyls (PCB) Program, the Residential Lead-Based Paint (LBP) Program, the Asbestos-Containing Material (ACM) Program, and the Radiological Program. These strategies represent an ongoing closure process of the NAVSTA TI Basewide Environmental Cleanup Program; as a result, the strategies and related schedules are subject to change.

The Department of Defense developed the Installation Restoration (IR) Program in 1981 to comply with CERCLA and other federal and state environmental regulatory requirements. The IR Program is specific to military facilities, and its purpose is twofold: (1) to identify, investigate, and clean up or control releases of hazardous substances; and (2) to reduce the risk to human health and the environment in a cost-effective manner. NAVSTA TI's IR Program consists of two programs: (1) the CERCLA Program, and (2) the Petroleum Program. Under the CERCLA Program, environmental investigations and cleanup began on NAVSTA TI in the mid-1980s and continue today. The initial facilitywide preliminary assessment/wite inspection (PA/SI) was conducted in 1987 to identify areas on Treasure Island (TI) and Yerba Buena Island (YBI) that required further investigation. The Navy identified 33 IR sites (24 CERCLA sites and nine petroleum sites) on TI and YBI.

Since 1987, the CERCLA program has evolved to include the following 24 sites, which are summarized below. The current program status for each site is included on Table 1.

	CERCI	-A Program Status	
Closed (1	13 Sites)	Open (11 Sites)	
Status	IR Site	Status	IR Site
No Action	28	Undergoing Investigation or Remediation	6, 12, 24, 31, 32
No Further Action (NFA)	1, 2, 3, 7, 9, 10, 13, 18, 23, 33	Undergoing Post-Record of Decision (ROD) Monitoring	21, 27, 30
Other (merged into Site 24)	5, 17	On Hold Pending Completion of San Francisco-Oakland Bay Bridge (Bay Bridge) Reconstruction Activities by California Department of Transportation (Caltrans)	8, 11, 29

The Petroleum Program includes nine petroleum sites along with numerous underground storage tanks (UST) and fuel lines throughout TI and YBI. Since 1987, many sites have been closed or are currently undergoing evaluation. The following table summarizes the Petroleum Program, though the current program status for each site is included on Table 1 and in Appendix A.

	Petroleum Program Status				
Close	d (112 Sites)	Ope	n (9 Sites)		
Petroleum Sites (9 Sites)	4/19, 6, 14/22, 15, 16, 20, 25	Petroleum Sites (0 Sites)			
UST Sites (89 Sites)	26 (Numerous locations)	<b>UST Sites</b> (7 Sites)	238, 240A, 240B, 248A, 248B, 248C, 248D		
Pipeline Sites (14 Sites)	Building 530, Causeway, D1A, D1B, D1C, D2A, D2B, D4A, D4B, D5, F2A, F2B, YF1, YF2	Pipeline Sites (2 Sites)	YF3, U.S. Coast Guard (USCG)		

This document is organized into two main sections (including this introduction), followed by tables, figures, and appendices. Section 2.0 provides an overview of the assumptions used to develop the site-specific schedules. These assumptions are driven by Navy contract funding execution plans, projected fiscal year remedial activities, and document production and review periods. Table 2 shows the durations for standard production and review of the primary and secondary documents to be produced. Additional site-specific detail is provided on the information sheets included in Appendix A and in the environmental schedule provided in Appendix B.

Completion dates for the forthcoming NAVSTA TI CERCLA documents are summarized by site in Table 3. A summary of Petroleum Program closeout status is provided in Table 4. All building locations and roadways on TI and YBI are shown in Figures 1 and 2. The NAVSTA TI IR Program is illustrated on Figure 3; the figure depicts the various program sites and transfer parcels on TI and YBI. The current program status for each site is included in Table 1.

The steps for site closure under the CERCLA and Petroleum Programs are illustrated as flowcharts on Figures 4 and 5. Figure 6 presents the specific closure strategy flowchart for Site 12. The locations of USTs on TI and YBI are shown on Figures 7 and 8. The status of the PCB program is shown on Figure 9. The status of the radiological program is shown on Figure 10. Environmental restrictions, transfer parcels, and environmental baseline survey (EBS) parcels are depicted on Figure 11. The April 2011 TI/YBI Redevelopment Project Conceptual Land Plan, prepared for the Treasure Island Development Authority, is shown on Figure 12.

### 2.0 SCHEDULE ASSUMPTIONS

A list of assumptions for the FFSRA schedule was developed and accepted by the Base Realignment and Closure Cleanup Team (BCT) for NAVSTA TI. The BCT consists of the Navy, DTSC, and the Cal/EPA San Francisco Bay Regional Water Quality Control Board (Water Board). Each of the site-specific schedules is based on these assumptions, which are presented below. The approved production and review periods have been published since July 30, 2004, in the annual "Site Management Plan Naval Station Treasure Island, San Francisco, California," formerly referred to as the "Environmental Closeout Strategy and Schedules." Table 2 presents the standard production and review periods for both primary and secondary documents. Table 3 summarizes completion dates, by site, for each step of the CERCLA closure process. These dates reflect the site-specific schedules in Appendix B. Table 4 summarizes the current closure status of sites in the Petroleum Program.

The assumptions below were used in development of the FFSRA schedule for NAVSTA TI. Any modifications in the assumptions could necessitate a significant change in the schedule.

- 1. The Navy will reissue updates to the FFSRA schedule annually.
- 2. If the schedule changes for a document or other activity (such as field work) that is the critical path for subsequent activities or documents, then the schedule for these subsequent activities or documents will be accepted by the BCT.
- 3. Consistent with the FFSRA, primary documents include remedial investigation (RI) reports, engineering evaluations/cost analyses (EE/CA), action memoranda, feasibility studies (FS), proposed plans (PP), records of decision (ROD), remedial action plans (RAP), and remedial designs (RD). Findings of suitability to transfer (FOST) will follow the primary document schedule. All other documents are considered secondary.
- 4. The compliance program schedules are not required by the FFSRA. These compliance programs include Residential LBP, Petroleum, PCBs, and ACM. The Petroleum, PCB, ACM, and Residential LBP Program schedules are included for planning and are not enforceable by the regulatory agencies.
- 5. The specific closeout strategy and schedules for Sites 8, 11, and 29, UST 238, and inactive fuel line site U.S. Coast Guard (USCG) are impacted from continued Bay Bridge construction activities by Caltrans in these areas.
- 6. In accordance with the FFSRA schedule, all parties have agreed to the following sequential process for the review of all <u>primary</u> documents (see revised production and review periods in Table 2):
  - A "scoping meeting" may be included as a placeholder for the Navy and regulatory agencies to discuss the objectives of the document before the document is prepared.
  - The Navy will be allowed at least a 90-day (60-business day) period to develop internal draft documents.

- A 30-day (20-business day) period will be provided for the Navy (including Navy legal reviews of FS, PP, ROD, and FOST documents and Navy Radiological Affairs Support Office [RASO] reviews of documents with radiological components) to review internal draft documents.
- A 14-day (10-business day) period will be included for the Navy to distribute draft documents to the regulatory agencies.
- A 30-day (20-business day) period will be provided for the regulatory agencies to review draft documents and submit written comments.
- A 28-day (20-business day) period will be provided for the Navy to prepare preliminary responses to agency review comments received, and to distribute the responses to regulatory agencies for discussion and concurrence
- A 30-day (20-business day) period will be provided for the Navy to develop internal final documents and finalize written responses to agency review comments that were submitted within the 30-day comment period.
- A 10-day (7-business day) period will be included for the Navy to review internal final documents.
- A 14-day (10-business day) period will be included for the Navy to distribute final documents.
- A 14-day (10-business day) period will be included for the representatives of the regulatory agencies to accept the final documents. Documents automatically become final if no written comments are received within the 14-day comment period.
- 7. All parties have agreed to the following sequential process for all <u>secondary</u> documents (see revised production and review periods in Table 2):
  - The Navy will be allowed at least a 30-day (20-business day) period to prepare internal draft documents.
  - A 14-day (10-business day) period will be provided for the Navy (including Navy RASO review of documents with radiological components) to review internal draft documents.
  - A 7-day (5-business day) period will be included for the Navy to distribute draft documents to the regulatory agencies.
  - A 30-day (20-business day) period will be included for the regulatory agencies to review draft documents and submit written comments.
  - A 33-day (23-business day) period will be provided for the Navy to develop internal final documents and written responses to agency review comments that were submitted within the 30-day comment period.
  - A 14-day (10-business day) period will be included for the Navy to review internal final documents.
  - A 14-day (10-business day) period will be included for the Navy to distribute final documents.

- A 14-day (10-business day) period will be provided for the representatives of the regulatory agencies to accept the final documents. Documents automatically become final if no written comments are received within the 14-day comment period.
- 8. The Navy will provide the regulatory agencies with a removal action work plan (RAWP) at least 45 days before the response action is initiated for removal actions (such as a non-time-critical removal action [NTCRA]) other than an emergency response action. The RAWP will not be subject to the general requirements for primary and secondary documents noted above. The regulatory agencies will have a 14-day (10-business day) period to review and provide comments or notice of concurrence on the RAWP to the Navy. The Navy will provide responses to agency review comments no less than 10 days before the response action is initiated.
- 9. In general, the following distribution will be followed for all documents, although certain exceptions or additions may apply to specific documents:
  - Regulatory agencies (DTSC, the Water Board, the U.S. Environmental Protection Agency (EPA), the City of San Francisco and its contractors, the Restoration Advisory Board (RAB) co-chair, and the RAB technical focus group) will receive copies of primary and secondary documents.
  - Final copies of all primary and secondary documents will be available in the information repositories and are listed in the administrative record.
- 10. Time for laboratory analysis and data validation is included in the dates specified for field work.
- 11. The current site evaluation criteria will not change significantly to delay the documents or field investigations.
- 12. For planning, unless otherwise noted, the durations of the field investigations are assumed to be (1) 90 days (60 business days) for a single-phase event; and (2) 180 days (120 business days) for a multiple-phase event, up to three phases.
- 13. For planning, unless otherwise noted, the remedial action (RA) field durations are assumed to be (1) 90 days (60 business days) for a small to medium RA with no groundwater concerns, (2) 250 days (179 business days) for a large RA with no groundwater concerns, and (3) 365 days (260 business days) for an RA with groundwater concerns.

TABLE 1: CERCLA AND PETROLEUM RELATED SITE INFORMATION

IR Site Number	Site Name	Historical Use	Contaminants of Potential Concern	Open or Closed Site	Status of CERCLA and Petroleum Phase
CERCLA	Sites				
1	Medical Clinic	On site X-ray and photo processing laboratory.	Silver	Closed	Site closed with regulatory agency concurrence March 20, 2002.
2	Radiation Training Area	Area used for Navy radiation decontamination training from mid-1950s to 1969.	Radionuclides	Closed	NFA recommended in 1988 PA/SI report.
3	PCB Equipment Storage Area	Area was used to store and repair transformers.	PCBs	Closed	Site closed with regulatory agency concurrence March 20, 2002.
5	Old Boiler Plant	Provided steam heat to nonresidential buildings.	Petroleum	Closed	CERCLA contaminants merged into Site 24 by DTSC letter dated January 17, 2001.
6	Fire Training School	Area used for Navy firefighter training for nearly 50 years.	Dioxins and furans, TPH, VOCs, and PAHs	Open	RI/FS report was finalized in October 2012. PP/draft RAP was finalized and a public meeting was held March 12, 2014. The ROD/final RAP is being finalized and the RCA FSS is being conducted. Annual groundwater monitoring continues.
7	Pesticide Storage Area	Area was used to store pesticides, herbicides, and paint.	Metals, pesticides, and herbicides	Closed	Site closed with regulatory agency concurrence on November 1, 2005.
8	Army Point Sludge Disposal Area	Area was used to dispose of sludge from the wastewater treatment plant for approximately 8 years.	SVOCs and metals	Open	Interim RI report was submitted March 2009. Navy will discuss resuming work on the site with Caltrans following demolition of the old eastern span, completion of the freeway access ramps, and demobilization from staging/laydown areas. The site will continue with the CERCLA process starting with an RI addendum.
9	Foundry	Area used as a forge and foundry, paint shop, and welding school.	Iron and benzo(a)pyrene, dibenz(a,h)anthracene	Closed	No Action ROD signed on October 2, 2007.

TABLE 1: CERCLA AND PETROLEUM RELATED SITE INFORMATION (CONTINUED) Site Management Plan, Naval Station Treasure Island, San Francisco, California

IR Site Number	Site Name	Historical Use	Contaminants of Potential Concern	Open or Closed Site	Status of CERCLA and Petroleum Phase
CERCLA	Sites (Continued)				
10	Bus Painting Shop	Shop used for bus painting, paint mixing, and storage of pest control solutions.	Iron and benzo(a)pyrene, dibenz(a,h)anthracene	Closed	No Action ROD signed on October 2, 2007.
11	YBI Landfill	Area was used as a landfill for various debris.	TPH, PAH, VOCs, and metals	Open	Interim RI report was submitted January 27, 2010. Navy will discuss resuming work on the site with Caltrans following demolition of the old eastern span, completion of the freeway access ramps, and demobilization from staging/laydown areas. The site will continue with the CERCLA process starting with an RI addendum.
12	Old Bunker Area	Area housed ammunition bunkers, former equipment storage areas, refuse areas, and solid waste incineration areas. Military housing construction and earthwork spread contaminants randomly in the subsurface across the site.	PCBs, PAH, dioxins, TPH, metals, radium-226, and debris	Open	NTCRA in SWDAs is in progress. RI report was finalized in June 2012, and an FS was finalized in March 2014. Additional data gaps sampling was conducted to support a FS addendum. Radiological surveys for areas outside the SWDAs were completed and a draft summary report was being prepared. In-house radiological scanning was completed for all residential units within Site 12 and a draft summary report was prepared.
13	Stormwater Outfalls / Offshore Sediments	Stormwater system conveys water from surface and building drains to San Francisco Bay without treatment.	Metals, PAH, PCBs, DDT, and TPH	Closed	No Action ROD signed on April 7, 2005.
17	Tanks 103/104	Two 200,000-gallon ASTs contained diesel.	Petroleum, oils, and lubricants	Closed	CERCLA contaminants merged into IR Site 24 by DTSC letter dated January 17, 2001.

TABLE 1: CERCLA AND PETROLEUM RELATED SITE INFORMATION (CONTINUED) Site Management Plan, Naval Station Treasure Island, San Francisco, California

IR Site Number	Site Name	Historical Use	Contaminants of Potential Concern	Open or Closed Site	Status of CERCLA and Petroleum Phase
CERCLA	Sites (Continued)				
18	Possible asbestos contamination on YBI was incorporated into asbestos investigations	Abandoned steam piping was exposed by a landslide in the early 1980s.	Asbestos	Closed	NFA recommended in 1988 PA/SI report.
21	Vessel Waste Oil Recovery Area	Area was used as an oil/water separator facility and for aircraft maintenance.	VOCs, TPH	Open	Groundwater and soil gas monitoring continues. ROD/final RAP was signed on February 19, 2013. A LUC RD/RAWP was finalized October 11, 2013, and LUC inspection and reporting is ongoing. Site 21 was included in the Five-Year Review finalized on December 15, 2014. A RACR is currently being finalized.
23	YBI Fuel Line Rupture/ Land Slide	A fuel line ruptured during a small landslide in the 1980s.	Petroleum	Closed	NFA recommended in 1988 PA/SI report.
24	Dry Cleaning Facility	Area was used as a laundry and dry cleaning facility for at least 35 years.	Petroleum, oil, lubricants, and chlorinated solvents	Open	Focused FS addendum finalized on October 3, 2014. A draft PP/Draft RAP was submitted on December 19, 2014. Annual groundwater monitoring continues.
27	Clipper Cove Skeet Range	Skeet range operated until 1989.	Lead shot	Open	ROD/final RAP signed March 28, 2012. RD/RAWP was completed in 2013. RA was completed November 29, 2013. A RACR finalized on December 12, 2014. Site 27 was included in the Five-Year Review finalized on December 15, 2014. LUC RD addendum is currently being prepared.

TABLE 1: CERCLA AND PETROLEUM RELATED SITE INFORMATION (CONTINUED) Site Management Plan, Naval Station Treasure Island, San Francisco, California

IR Site Number	Site Name	Historical Use	Contaminants of Potential Concern	Open or Closed Site	Status of CERCLA and Petroleum Phase
CERCLA	Sites (Continued)	,	***************************************	·	
28	West Side On/Off Ramp	Maintenance of ramps included using lead-based paint.	Lead	Closed	NFA ROD was signed November 22, 2010.
29	East Side On/Off Ramp	Maintenance of ramps included using lead-based paint.	Lead and SVOCs	Open	Interim RI report was submitted March 2009. Navy will discuss resuming work on the site with Caltrans following demolition of the old eastern span, completion of the freeway access ramps, and demobilization from staging/laydown areas. The site will continue with the CERCLA process starting with an RI addendum.
30	Daycare Center	Area was undeveloped until 1985, when Daycare Center was constructed. Burned debris was possibly used to backfill utility trenches.	Dioxins and metals	Open	ROD/final RAP signed August 5, 2009. LUC inspection and reporting is ongoing. Site 30 was included in the Five-Year Review finalized on December 15, 2014. A radiological survey work plan is being prepared.
31	Former South Storage Yard	Area appears in aerial photos to have been used as a storage yard during the 1970s.	Lead, dioxins, PAH, TPH, and radium-226	Open	RA field work and site restoration are complete and a RACR and FSS are being prepared.
32	Former Training and Storage Area	Area was used for hazardous materials storage area, and for tear gas training area and storage. Area currently contains a transformer pad.	PCBs, TPH, dioxins, pesticides, and arsenic	Open	PP/draft RAP was issued September 2011. Radiological survey was conducted for former USS <i>Pandemonium</i> site and a summary report is being prepared. ROD/final RAP on hold pending survey results.
33	Water Line Replacement Area	Debris was observed in water line trench during extensive historical repairs.	Arsenic and lead	Closed	Site closed with regulatory agency concurrence on October 29, 2014, with signatures in the final RACR.

TABLE 1: CERCLA AND PETROLEUM RELATED SITE INFORMATION (CONTINUED) Site Management Plan, Naval Station Treasure Island, San Francisco, California

IR Site Number	Site Name	Historical Use	Contaminants of Potential Concern	Open or Closed Site	Status of CERCLA and Petroleum Phase
Petroleun	n Sites				
4/19	Hydraulic Training School/Refuse Transfer Area	Area housed 15 55-gallon drums of waste oil, and fenced area used for the transfer, holding, and disposal of refuse for approximately 35 years.	Petroleum, oil, lubricants	Closed	NFA concurrence letter received from Water Board dated December 17, 2003.
6	Fire Training School	Area was used for Navy firefighting training for nearly 50 years.	Dioxins and furans, TPH, VOCs, PAHs	Open	Closure report requesting NFA submitted December 16, 2005. Water Board did not concur with request for NFA. Moved to CERCLA Program on September 18, 2003. Groundwater monitoring to be conducted under CERCLA Program. UST 240s corrective action is complete. Estimated site closure in November 2016 following groundwater monitoring.
14/22	New Fuel Farm/Navy Exchange Service Station	Area was the primary storage and distribution area for fuels for more than 50 years.	Petroleum, oil, lubricants, VOCs	Closed	NFA concurrence letter received from Water Board dated July 18, 2005.
15	Old Fuel Farm	Original fuel storage and distribution facility, much of which was moved to New Fuel Farm by 1945.	Petroleum, oil, lubricants	Closed	NFA concurrence letter received from Water Board dated September 2004.
16	Clipper Cove Tank Farm	Area stored aviation gasoline and automotive diesel for more than 20 years.	Petroleum, oil, lubricants	Closed	NFA concurrence letter received from Water Board dated June 17, 2004.
20	Auto Hobby Shop/ Transportation Center	Area has been used for steam cleaning and degreasing vehicles and for storage of hydraulic fluid and recycled oil.	Petroleum, oil, lubricants, VOCs	Closed	NFA concurrence letter received from Water Board dated June 17, 2004.

TABLE 1: CERCLA AND PETROLEUM RELATED SITE INFORMATION (CONTINUED) Site Management Plan, Naval Station Treasure Island, San Francisco, California

IR Site Number	Site Name	Historical Use	Contaminants of Potential Concern	Open or Closed Site	Status of CERCLA and Petroleum Phase
Petroleu	m Sites (Continued)				
25	Seaplane Maintenance Area	Three areas are used for storing and maintaining vehicles and seaplanes.	Petroleum, oil, lubricants	Closed	NFA concurrence letter received from Water Board dated October 28, 2011.
26	UST Sites	USTs.	Petroleum	Open	Various NFA concurrence letters received for 89 sites. NFA concurrence will be requested for 6 USTs at Site 6 in 2016. UST 238 on YBI awaits completion of Caltrans activities.
Pipeline Sites	Sites USCG and YF3	Inactive fuel pipelines.	Petroleum	Open	NFA concurrence letters for 14 pipeline sites received from Water Board on various dates. Further investigation and site completion are planned for 2 sites (USCG and YF3). A SLERA is currently being prepared for YF3; however, additional characterization is planned.
Notes:					
Cal/EPA Caltrans CERCLA DDT DTSC FS FSS IR LUC Navy NFA NTCRA PA PAH PCB	Aboveground storage tank California Environmental F California Department of T Comprehensive Environm Dichlorodiphenyltrichloroe Department of Toxic Subs Feasibility study Final status survey Installation Restoration Land use control Department of the Navy No further action Non-time-critical removal a Preliminary assessment Polycyclic aromatic hydrod Polychlorinated biphenyl Proposed plan	Protection Agency Transportation ental Response, Compensation, and Liability Ad thane tances Control	RACR RAP RAWP ct RCA RD RI ROD SI SLERA SVOC SWDA TPH USCG UST VOC Water Board YBI	Remedial action Remedial action Radiologically Remedial designment Remedial inverse Record of decipoistic inspection Screening-levers Semivolatile of Solid waste distributed in Total petroleur U.S. Coast Guunderground streen Remedial Potatile organi	on work plan controlled area gn stigation ision el ecological risk assessment rganic compound sposal area n hydrocarbon iard storage tank c compound Franciso Bay Regional Water Quality Control Board

TABLE 2: DOCUMENT PRODUCTION AND REVIEW PERIODS

FFSRA Guideli	ines	Revised Production and	Revised Production and Review Periods <sup>a,b</sup>		
Primary Documents °					
N/A		Scoping Meeting	d		
Internal Draft	90 ed	Internal Draft	60 d / 90 ed		
Navy Review	15 ed	Navy Review	20 d / 30 ed <sup>e</sup>		
N/A	10 M 10 M	Revise Internal Draft			
N/A		Navy Legal Review			
Draft	15 ed	Draft	10 d / 14 ed		
Agency Review	60 ed	Agency Review	20 d / 30 ed		
N/A		Preliminary Draft RTCs	20 d / 28 ed <sup>f</sup>		
N/A	Section Ann. Sec.	Working Meeting	d		
Internal Draft Final	46 ed	Internal Draft Final	NO 30 EM EM		
Navy Review	7 ed	Navy Review			
Draft Final	7 ed	Draft Final	***		
Agency Review	30 ed	Agency Review			
Internal Final	46 ed	Internal Final	20 d / 30 ed		
Navy Review	7 ed	Navy Review	7 d / 10 ed		
Final	7 ed	Final	10 d / 14 ed <sup>g</sup>		
Total:	330 ed	Total:	167 d / 246 ed		
Secondary Documents h					
Internal Draft	60 ed	Internal Draft	20 d / 30 ed		
Navy Review	7 ed	Navy Review	10 d / 14 ed <sup>e</sup>		
Draft	7 ed	Draft	5 d / 7 ed		
Agency Review	30 ed	Agency Review	20 d / 30 ed		
N/A		Working Meeting	d		
Draft Final	30 ed	Draft Final			
Agency Review	30 ed	Agency Review			
Internal Final	46 ed	Internal Final	23 d / 33 ed		
Navy Review	7 ed	Navy Review	10 d / 14 ed		
Final	7 ed	Final	10 d / 14 ed <sup>g</sup>		
Total:	224 ed	Total:	98 d / 142 ed		

#### Notes:

- a The revised document production and review periods were approved by the Base Realignment and Closure Cleanup Team in 2004 ("Environmental Closeout Strategy and Schedules, Naval Station Treasure Island, San Francisco, California," dated July 30, 2004, and published by SulTech). In some cases, standard production and review periods may not be followed.
- b Remedial action work plans will be submitted for review at least 45 days before the response action is initiated. The regulatory agencies will have a 14-day review period to provide comments or notice of concurrence. The Navy will provide responses to comments (RTCs) no less than 10 days before the response action begins.
- c Primary documents include remedial investigation reports, engineering evaluation/cost analyses, action memoranda, feasibility studies, remedial designs, proposed plans, and record of decisions/remedial action plans. Finding of suitability to transfers will also follow the primary document schedule.
- d Working meetings and scoping meetings are included as placeholders for the Navy and regulatory agencies to discuss a document, receive review comments, or to discuss or resolve issues relating to a document.
- Primary or secondary documents with radiological components require a 30-day review by the Navy's Radiological Affairs Support Office.
- f The 28-day schedule includes drafting the RTCs, review of responses by Navy, and distribution for agency review.
- g Agencies have a 14-day period to approve or comment on final documents. Documents automatically become final if no written comments are received within the 14-day comment period.
- h Secondary documents include, but are not limited to, technical memoranda, design strategies, summary reports, sampling and analysis plans, quality assurance project plans, and work plans.
- d Business day (or working day) ---
- ed Elapsed day (or calendar day, as opposed to a N/A Not applicable working day)

Not applicable

TABLE 3: SUMMARY OF FORTHCOMING CERCLA DOCUMENTS AND PHASES

CERCLA Primary Documents	Date Complete	CERCLA Primary Documents	Date Complete
Site 6 (CERCLA)	***************************************	Site 24	
✓ RI/FS	10/25/12	✓ FS Addendum	10/03/14
PP/ROD/RAP	12/31/14	PP/ROD/RAP	09/03/15
FSS	06/11/15	RD/RA	08/30/17
RD/RA	10/12/16		
Site 12		Site 27	
✓ FS	03/18/14	RD/RA	12/12/14
FS Addendum	04/06/15	LUC RD Addendum	02/20/15
PP/ROD/RAP	07/26/16		
RD/RA	03/15/19	Site 31	
Phase III PCSR/FSS	03/31/17	FSS	05/04/15
RAD/CERCLA FS Addendum	12/07/17	RA	05/06/15
RAD/CERCLA PP/ROD/RAP	12/26/18		
RAD/CERCLA RD/RA	06/10/21	Site 32	
		PP/ROD/RAP	11/12/15
Site 21			
✓ PP/ROD/RAP	02/19/13	Site 33	
RD/RA	01/12/15	✓ RD/RA	10/29/14

#### Notes:

PP/ROD/RAP end date is considered the date the ROD is signed.

RD/RA end date is considered the date the RACR is completed.

/	Complete

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

FS Feasibility study
FSS Final status survey
LUC Land use control
PP Proposed plan
RA Remedial action

RACR Remedial action completion report

RAD Radiological

RAP Remedial action plan
RAWP Remedial action work plan
RD Remedial design
RI Remedial investigation
ROD Record of decision

TABLE 4: PETROLEUM SITE SUMMARY

Petroleum Program Site	Water Board Case Number	Associated USTs/ASTs	Closure Report Requests NFA/Closure	Closure Report	Closure Letter Date	Comments
UST 1A, 1E, 368A, and 2C	38D9601 38D9602 38D9603	UST 1A UST 1E UST 368A	UST Closure	Draft UST Closure Report for UST Sites 1A, 1E, and 368A at Naval Station Treasure Island. October 2000. AGS Inc.	February 25, 2002	Water Board UST case closure letter.
	38D9604	UST 2C		Draft Summary Report of UST Removals, Naval Station Treasure Island. January 20, 1994. PRC Environmental Management, Inc.		
UST 180C, Building 180	38D9605	UST 180C	UST Closure	Final Closure Report Building 180 Request for No Further Action. August 15, 2005. Shaw.	October 11, 2005	Water Board UST case closure letter.
Pipeline D4A UST 201	38D9606	D4A Pipeline	Pipeline NFA	Final CAP Inactive Fuel Lines, Naval Station Treasure Island. December 2003. Tetra Tech.	February 10, 2004	Water Board NFA <sup>1</sup> concurrence letter.
		UST 201	UST 201 UST Closure	Draft Final UST Investigation Report for UST Sites 143, 180C, 201, 227, and 368B at Naval Station Treasure Island. January 2001.  AGS Inc.	February 10, 2004	Water Board UST case closure letter.
				Final CAP Inactive Fuel Lines, Naval Station Treasure Island. December 2003. Tetra Tech.		
Building 227	38D9607	UST 227	UST Closure	Final Closure Report, Site 227, Request for No Further Action, Naval Station Treasure Island. August 16, 2004. Shaw.	September 21, 2004	Water Board UST case closure letter.
UST 368B	38D9608	UST 368B	UST Closure	Final Closure Report UST 368B Request for No Further Action, Naval Station Treasure Island. December 2003. Tetra Tech.	December 17, 2003	Water Board UST case closure letter.

USTs with known releases to the environment are closed pursuant to Title 23 of the California Code of Regulations. If the UST was used to store heating oil and had a capacity of less than 1,100 gallons or a release has not occurred, the Navy will request NFA and submit a letter to the Water Board for concurrence. The Navy has demonstrated to the Water Board that NFA is required for UST sites that have received NFA concurrence. The Navy has completed all site investigations and RA related to the UST site for UST sites that have received regulatory closure.

Petroleum Program Site	Water Board Case Number	Associated USTs/ASTs	Closure Report Requests NFA/Closure	Closure Report	Closure Letter Date	Comments
Site 6	38D9609	USTs (240A, 240B, 248A, 248B, 248C, and 248D) ASTs (248, 240)	UST Closure, AST NFA, Site NFA	Final Closure Report Site 06 Request for No Further Action, Naval Station Treasure Island. December 16, 2005. Shaw.	TBD	Petroleum Program investigations completed, report requesting NFA concurrence submitted, concurrence with NFA not granted. <sup>2</sup> Ongoing groundwater monitoring at the site. Navy prepared the UST 240 PCSR and will be requesting regulatory closure for USTs 240 and 248 in 2016.
Sites 14/22	38D9610	Removed ASTs (4, 5, 6A, 6B, 6C, 6E, 6F, and 6G, and 456) Removed USTs (85, 330A, 330B, 330E, and 330F)	UST Closure AST NFA Site NFA	Final Closure Report Site 14/22 Request for No Further Action, Naval Station Treasure Island. June 13, 2005. Shaw.	July 18, 2005	Water Board NFA concurrence letter. ASTs 6A, through 6G were originally closed as "existing decommissioned" ASTs, but were removed in February 2012.
Site 20	38D9611	See UST 225A-D	Site NFA	Final Closure Report Site 20 Request for No Further Action Naval Station Treasure Island. January 2004. Tetra Tech.	June 17, 2004	Water Board NFA concurrence letter.
USTs 225 A-D	38D9611	USTs 225 A-D (Site 20)	UST Closure	Final Closure Report Site 20 Request for No Further Action Naval Station Treasure Island. January 2004. Tetra Tech.	May 5, 2004	Water Board UST case closure letter.

Letter dated May 15, 2006, from A. Friedman, Regional Water Board, Water Resource Control Engineer, to Ellen Casados, Navy Remedial Project Manager. Regarding Regional Water Board Staff Comments on Final Closure Report, Site 6, Request for No Further Action, Naval Station Treasure Island, San Francisco.

Petroleum Program Site	Water Board Case Number	Associated USTs/ASTs	Closure Report Requests NFA/Closure	Closure Report	Closure Letter Date	Comments
Pipeline USCG		Pipeline USCG	Pipeline NFA	Final CAP Inactive Fuel Lines, Naval Station Treasure Island. December 2003. Tetra Tech.	TBD	Water Board did not concur with NFA and requested additional investigation. <sup>3</sup> Investigation is on hold until completion of the Bay Bridge project. USTs associated with this site are tracked on a separate line.
		UST 270	UST Closure	Final UST Investigation Report, for Former UST Tank Site 270 at Naval Station Treasure Island. August 1999. ERM West.  Final CAP Inactive Fuel Lines, Naval Station Treasure Island. December 2003.  Tetra Tech.	February 10, 2004	Water Board UST case closure letter.
Building 66	38D9613	UST 66	UST Closure	Final Post Construction Summary Report Building 66 Remedial Excavation Naval Station Treasure Island. December 11, 2002. IT Corporation.	October 23, 2002	Water Board UST case closure letter.
USTs 204	38D9614	USTs 204 A, B, C, D (no release)	UST NFA	Final Post Construction Summary Report, UST Sites 204, 237, and 238, Naval Station Treasure Island. May 24, 2004. Shaw.	June 17, 2004	Water Board NFA concurrence letter.
UST 237	38D9614	UST 237 (previously suspected)	UST NFA	Final Post Construction Summary Report, UST Sites 204, 237, and 238, Naval Station Treasure Island. May 24, 2004. Shaw.	June 17, 2004	NFA for UST 237 requested; however, petroleum-contaminated soil (likely from the USCG site) remains in the vicinity. Report recommended additional investigation. Since a tank was not present, a case closure letter is not required.

<sup>&</sup>lt;sup>3</sup> Letter date illegible (February 2004) from S. Raker, Regional Water Board Engineering Geologist, to Ellen Casados, Navy Remedial Project Manager, Concurrence on Final Corrective Action Plan (CAP), Inactive Fuel Lines, Naval Station Treasure Island.

Petroleum Program Site	Water Board Case Number	Associated USTs/ASTs	Closure Report Requests NFA/Closure	Closure Report	Closure Letter Date	Comments
Site 25	38D9615	USTs (143A through 143I, and 2B)	UST Closure, Site NFA	Final Closure Report Site 25 Request for No Further Action, Naval Station Treasure Island. December 7, 2005. Shaw. Final Addendum to Closure Report Site 25 Request for No Further Action, Naval Station Treasure Island. January 29, 2010. Shaw. Targeted Soil Gas Investigation Results and Vapor Intrusion Pathway Evaluation and Site Closure Request Technical Memorandum, Site 25, Naval Station Treasure Island, March 7, 2011. Shaw.	October 28, 2011	Petroleum Program investigations completed, report requesting NFA concurrence submitted, concurrence with NFA not granted. <sup>4</sup> Additional soil samples were collected in 2009 and a final revised request for NFA concurrence was submitted. At the request of the BCT, additional soil gas sampling was conducted in late 2010 and early 2011. The Water Board concurred with NFA for Site 25 in an October 28, 2011 letter.
Pipeline D1B	Pipeline D1B 38D9616	None	Groundwater and Site NFA	Final Addendum to Closure Report, Site D1B, Request for No Further Action for Shallow Soils, Naval Station Treasure Island. February 28, 2006. Shaw.	May 15, 2006	Water Board NFA concurrence letter.
		None	Shallow Soil NFA	Final Closure Report, Site D1B, Request for No Further Action for Shallow Soils, Naval Station Treasure Island. April 18, 2005. Shaw.	July 20, 2005	Water Board NFA concurrence letter.
Pipeline F2A/F2B	38D9617	USTs (14A and 14B) (suspected removed)  ASTs (103 and 104)	UST NFA, AST NFA, Site NFA	Final Closure Report, Sites F2A and F2B, Request for No Further Action, Naval Station Treasure Island. July 15, 2005. Shaw.	August 19, 2005	A case closure letter is not required because tanks are not present. (The Water Board also previously concurred NFA required for USTs and ASTs in a May 9, 2005 letter.)

<sup>&</sup>lt;sup>4</sup> Letter dated May 15, 2006, from A. Friedman, Regional Water Board, Water Resource Control Engineer, to Ellen Casados, Navy Remedial Project Manager. Regarding Regional Water Board Staff Comments on Final Closure Report, Site 25, Request for No Further Action, Naval Station Treasure Island, San Francisco.

Petroleum Program Site	Water Board Case Number	Associated USTs/ASTs	Closure Report Requests NFA/Closure	Closure Report	Closure Letter Date	Comments	
Site 15	38D9618	None	AST and Site NFA	Final Closure Report, Site 15, Request for No Further Action, Naval Station Treasure Island. September 15, 2004. Shaw.	September 27, 2004	No USTs are associated with this site.	
		None	Shallow Soil NFA	Final Post Construction Summary Report, Site 15 Remedial Excavation, Naval Station Treasure Island. November 19, 2003. Shaw.	December 1, 2003	Water Board NFA concurrence letter.	
UST QR08, 230, and 257	38D9701	UST QR08	UST Closure	Underground Storage Tank Removal Summary Report for Tanks 248A, 248B, 257, QTR8, 180D, and 180E Naval Station	October 3, 1997	Water Board UST case closure letter.	
	38D9702	UST 230 (TI)		Treasure Island. March 1997. Navy.			
	0000000	1107.057		Draft Tank Removal Summary Report, Naval			
	38D9703 UST 257		Station Treasure Island, California. August 31, 1990. PRC Environmental Management, Inc. (Includes UST 230 TI.)				
UST 1B, 1C,	38D9704	UST 1B	Tank Inve	Report on Abandoned Underground Storage Tank Investigation at Naval Station Treasure Island. April 1989. ERM West.	July 22, 1996	Water Board UST case closure letter.	
1D, 1F, 2A, 2D, 111, 169,	38D9704	UST 1C					
180A, 180B,	38D9704	UST1D					
300D, and 330C	38D9705	UST 1F					
3300	38D9706	UST 2A					
	38D9707	UST 2D					
	38D9708	UST 330C					
	38D9708	UST 330D					
	38D9709	UST 180A					
	38D9709	UST 180B					
	38D9710 UST 111						
	38D9711	UST 169					
UST 469 (1G)	UTOO3878	UST 469	City and County of San Francisco UST Closure UST Closure	Draft Final UST Closure Report at Building 369, Naval Station Treasure Island. May 2000. AGS Inc.	July 7, 2000	City and County of San Francisco UST Closure letter.	

18 Site Management Plan, NAVSTA TI TRIE-2205-0038-0088

Petroleum Program Site	Water Board Case Number	Associated USTs/ASTs	Closure Report Requests NFA/Closure	Closure Report	Closure Letter Date	Comments
UST 238 (YBI)		UST 238 (YBI)	UST Closure		TBD	Suspected tank in USCG Site. GPR was inconclusive in search for the tank; further investigation on hold until completion of the Bay Bridge project. <sup>5</sup>
Pipeline YF3		None	Pipeline NFA	<del></del>	TBD	Water Board letter received February 12, 2004, requested additional investigation. The Navy is conducting a SLERA; however, additional data gaps sampling was requested by the Water Board in 2014.
UST 140, 221, and 230		UST 140 (TI) UST 221 (YBI) UST 230 (YBI) (previously	UST NFA, UST Closure (221)	Final Post Construction Summary Report, UST Sites 140, 221, and 230, Naval Station Treasure Island. May 6, 2004. Shaw.	June 17, 2004 Not Received (UST 221)	UST 140: previously suspected tank. Unable to locate with further investigation; Water Board concurred with NFA.
		suspected)				UST 230: previously suspected tank. Unable to locate with further investigation; Water Board concurred with NFA.
						UST 221 located and removed; no evidence of leaking observed. Navy requested closure of UST; Water Board concurred with NFA. Therefore no closure letter required.
Site 16		10 Former ASTs	Site NFA	Final Closure Report Site 16 Clipper Cove Tank Farm Request for No Further Action, Naval Station Treasure Island. April 27, 2004. Shaw.	June 17, 2004	Water Board NFA concurrence letter.

<sup>&</sup>lt;sup>5</sup> Letter dated June 17, 2004, from S. Raker, Regional Water Board Engineering Geologist, to Ellen Casados, Navy Remedial Project Manager. Regarding Concurrence on Request for No Further Action, USTs 204 and 237, Naval Station Treasure Island, San Francisco.

Petroleum Program Site	Water Board Case Number	Associated USTs/ASTs	Closure Report Requests NFA/Closure	Closure Report	Closure Letter Date	Comments
Pipeline YF2		None	Pipeline NFA	Final CAP Inactive Fuel Lines, Naval Station Treasure Island. December 2003. Tetra Tech.	June 17, 2004	Water Board NFA concurrence letter.
Pipeline D1A		None	Pipeline NFA	Final CAP Inactive Fuel Lines, Naval Station Treasure Island. December 2003. Tetra Tech.	February 10, 2004	Water Board NFA concurrence letter.
Pipeline D1C		None	Pipeline NFA	Final CAP Inactive Fuel Lines, Naval Station Treasure Island. December 2003. Tetra Tech.	February 10, 2004	Water Board NFA concurrence letter.
Pipeline D2A		UST 26 (suspected removed)	Pipeline/UST NFA	Final CAP Inactive Fuel Lines, Naval Station Treasure Island. December 2003. Tetra Tech.	February 10, 2004	Water Board NFA concurrence letter.
Pipeline D2B		None	Pipeline NFA	Final CAP Inactive Fuel Lines, Naval Station Treasure Island. December 2003. Tetra Tech.	February 10, 2004	Water Board NFA concurrence letter.
Pipeline D4B		UST 29 (suspected removed)	Pipeline/UST NFA	Final CAP Inactive Fuel Lines, Naval Station Treasure Island. December 2003. Tetra Tech.	February 10, 2004	Water Board NFA concurrence letter.
Pipeline D5		UST 15 (suspected removed)	Pipeline/UST NFA	Final CAP Inactive Fuel Lines, Naval Station Treasure Island. December 2003. Tetra Tech.	February 10, 2004	Water Board NFA concurrence letter.
Pipeline YF1		None	Pipeline NFA	Final Closure Report Site 04/19 Request for No Further Action Naval Station Treasure Island. December 2003. Tetra Tech.	February 10, 2004	Water Board NFA concurrence letter.
Site 4/19	<del></del>	None	Site NFA	Final Facilitywide Underground Storage Tank Summary Report, Naval Station Treasure Island. October 2003. Tetra Tech.	December 17, 2003	Water Board NFA concurrence letter.
Facilitywide UST		16 previously suspected USTs	UST NFA	Final CAP Inactive Fuel Lines, Naval Station Treasure Island. December 2003. Tetra Tech.	December 2, 2003	Water Board NFA concurrence letter.

# TABLE 4: PETROLEUM SITE SUMMARY (CONTINUED)

Site Management Plan, Naval Station Treasure Island, San Francisco, California

Petroleum Program Site	Water Board Case Number	Associated USTs/ASTs	Closure Report Requests NFA/Closure	Closure Report	Closure Letter Date	Comments
Home Heating Oil UST 57 and 234		UST 57 UST 234	UST NFA	Report on Abandoned Underground Storage Tank Investigation at Naval Station Treasure Island. April 1989. ERM West.	September 5, 2003	Water Board NFA concurrence letter.
Parcel T086		None	Site NFA	Final Post Construction Summary Report Parcel T086 Exploratory Trenching Naval Station Treasure Island. June 11, 2003. Shaw.	July 9, 2003	Water Board NFA concurrence letter.
Building 530 Pipeline		None	Pipeline NFA	Final Post Construction Summary Report Building 530 Pipeline Removal and Closure Naval Station Treasure Island. June 11, 2003. IT Corporation.	July 9, 2003	Water Board NFA concurrence letter.
Causeway Pipeline		None	Pipeline NFA	Final Post Construction Summary Report Causeway Pipeline Removal and Closure Naval Station Treasure Island. January 20, 2003. IT Corporation.	March 11, 2003	Water Board NFA concurrence letter.
Home Heating Oil UST 1-7, 9, 10, 62, and 240		UST 1-7, 9, 10, 62, and 240	UST NFA	Summary of the Closure-in-Place of Eleven Underground Home Heating Oil Tanks at Yerba Buena Island, Naval Station Treasure Island. December 31, 1996. Navy.	July 23, 2002	Water Board NFA concurrence letter.
UST 180D and 180E		UST 180D and 180E (no release)	UST NFA	Underground Storage Tank Removal Summary Report for Tanks 248A, 248B, 257, QTR8, 180D, and 180E Naval Station Treasure Island. March 1997. Navy.	October 3, 1997	Water Board NFA concurrence letter.

Notes: Gray shading indicates action required. Bold text indicates sites that are not closed.

Not applicable RA Remedial Action Aboveground storage tank AST Shaw Shaw Environmental Inc. San Francisco-Oakland Bay Bridge TBD Bay Bridge To be determined BCT Base Realignment and Closure Cleanup Team Tetra Tech Tetra Tech EM Inc. CAP Corrective Action Plan USCG United States Coast Guard

ERM West Environmental Resources Management West, Inc.

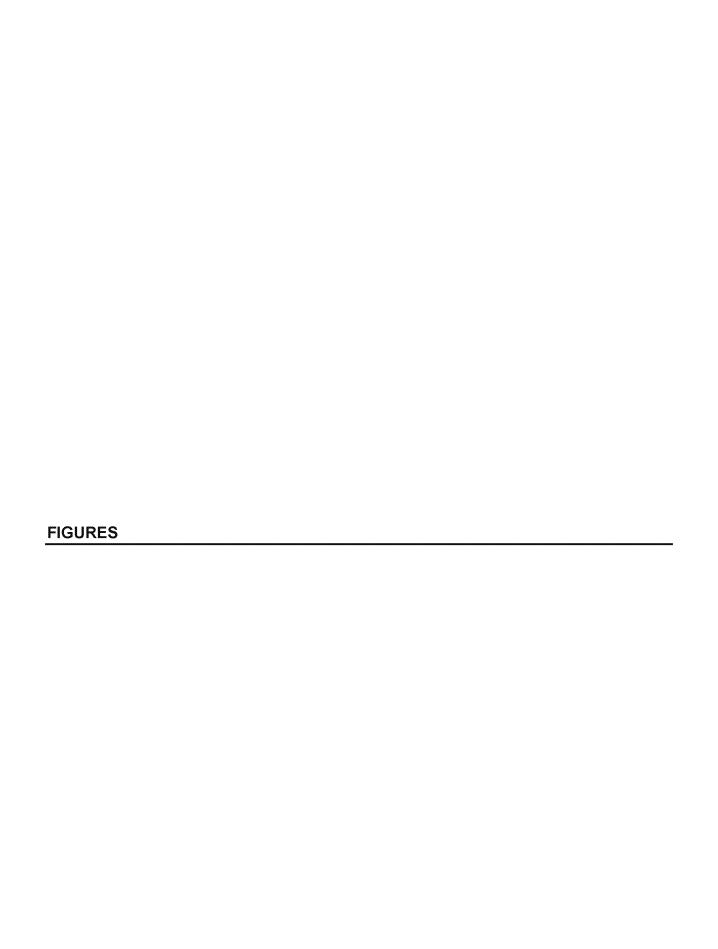
GPR Ground-penetrating radar

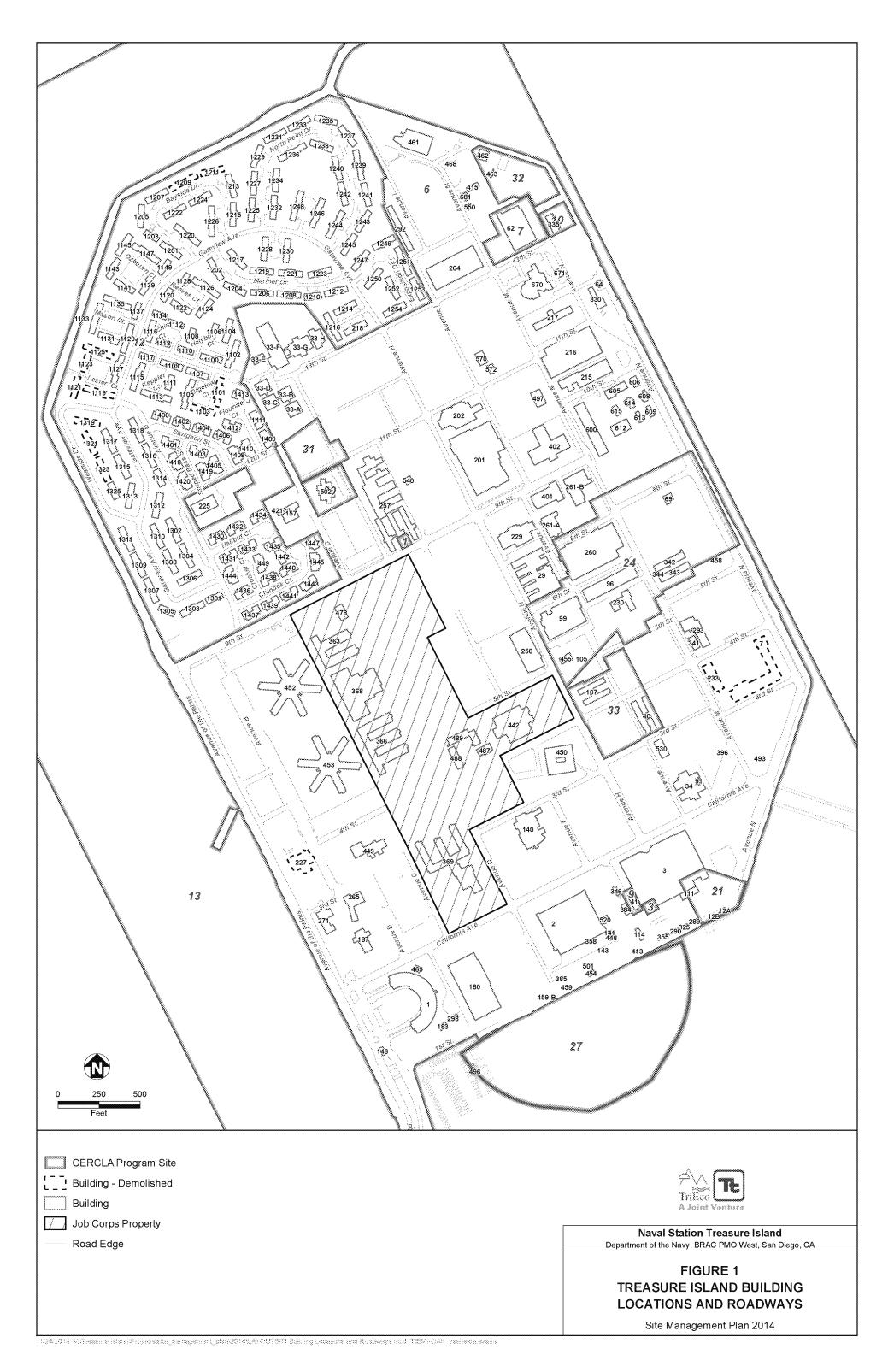
UST Underground storage tank

Water Board San Francisco Bay Regional Water Quality Control Board

NFA No further action YBI Yerba Buena Island

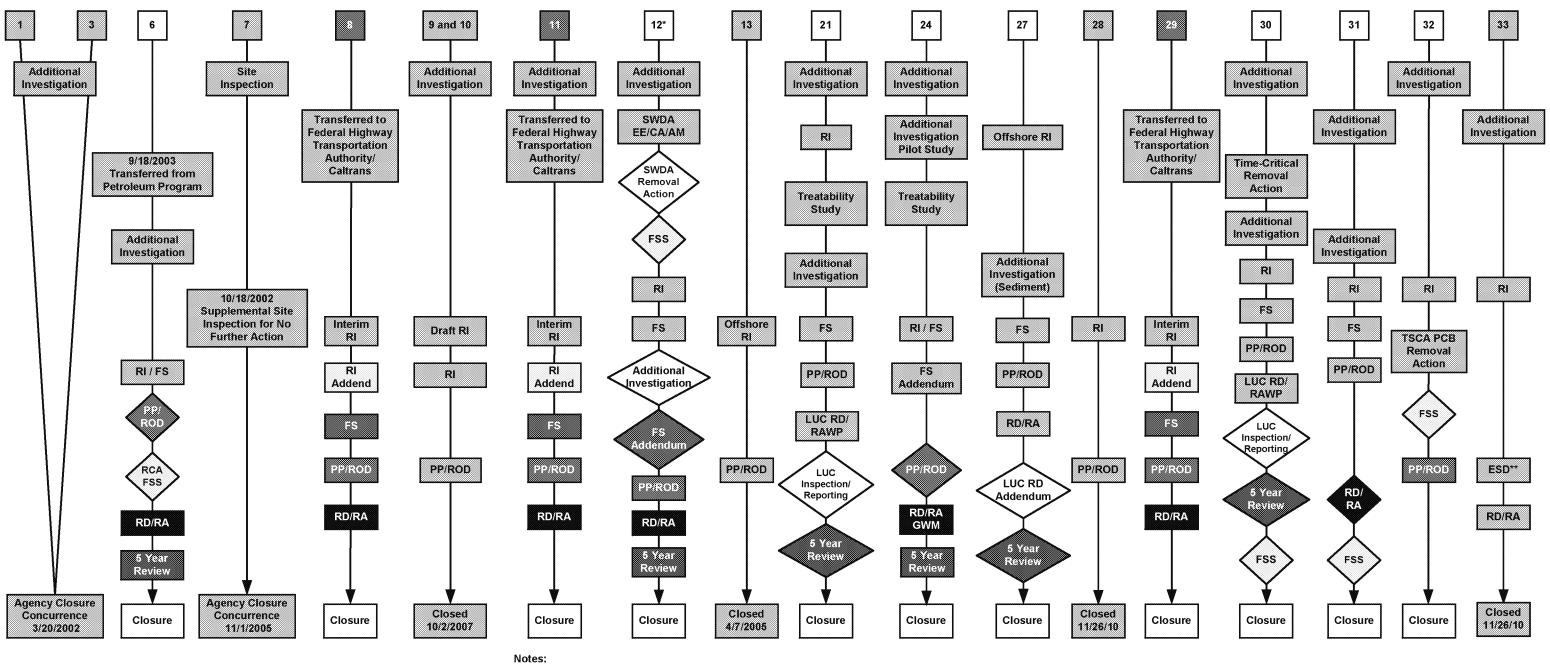
PCSR Post-construction summary report











## Legend:

Shape indicates current ongoing activity, activities below this point are anticipated as of this update

Shading indicates activity completed or site is closed

Caltrans property

Indicates RI or RI RI Addendum

Indicates FSS in accordance FSS with MARSSIM

Indicates FS or FS 68 Addendum

PP/ROD Indicates PP/ROD

RD/RA Indicates RD/RA

Indicates Five Year Review

Closure Indicates Site Closure Action memorandum

Caltrans California Department of Transportation

CERCLA Comprehensive Environmental Response, Compensation,

and Liability Act

EE/CA Engineering evaluation / cost analysis ESD Explanation of significant differences

NFA No further action FS Feasibility study FSS Final status survey **GWM** Groundwater monitoring LUC

MARSSIM Multi-Agency Radiation Survey and Site Investigation Manual

PA/SI Preliminary assessment/site inspection

PCB Polychlorinated biphenyl PΡ Proposed plan RA Remedial action

RCA Radiologically controlled area RD Remedial design RI Remedial investigation ROD Record of decision

TI Treasure Island **TSCA** Toxic Substances Control Act

Solid waste disposal area

Work plan

**SWDA** 

Flow chart refers to the potential overall site strategy. These strategies represent an ongoing closure process; therefore, they and any related schedules are subject to change. Specific sites may be completed earlier.

- \* A more detailed flow chart of the CERCLA and Radiological components for the various areas within Site 12 is depicted on Figure 6.
- \*\* The ESD was written to modify the Site 31 ROD/RAP to include Site 33 as part of the remedy.

Sites 2, 18, and 23 were recommended for NFA in the PA/SI.

Sites 5 and 17 were merged into Site 24 by letter dated January 17, 2001.

Because of Caltrans activities in the vicinity of Sites 8, 11, and 29, which may result in the removal of known contamination, standard CERCLA schedules are based on Caltrans' quarterly schedule. The Navy finalized the interim RI reports for these sites.

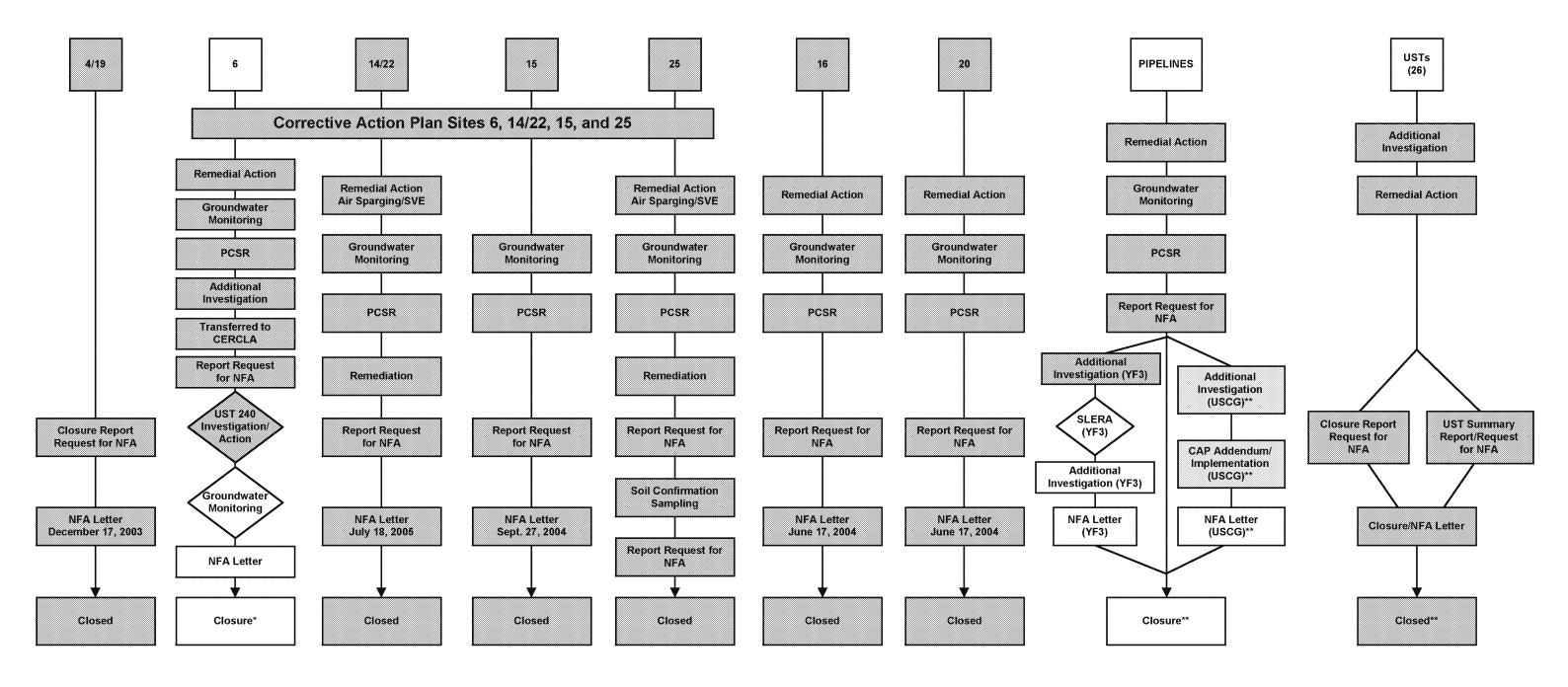


**Naval Station Treasure Island** Department of the Navy, BRAC PMO West, San Diego, CA

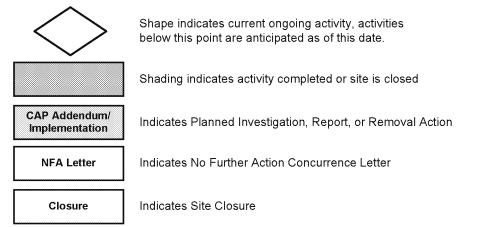
### FIGURE 4

CERCLA PROGRAM SITE STRATEGY **FLOW CHART** 

Site Management Plan 2014



#### Legend:



Notes:	
Caltrans	California Department of Transportation
CAP	Corrective action plan
FOSET	Finding of suitability for early transfer
FOST	Finding of suitability to transfer
NFA	No further action
PA/SI	Preliminary assessment/site inspection
PCSR	Post-construction summary report
SVE	Soil vapor extraction
TI	Treasure Island
USCG	United States Coast Guard
UST	Underground storage tank
YBI	Yerba Buena Island

Flow chart refers to the potential overall site strategy. These strategies represent an ongoing closure process; therefore, they, and any related schedules, are subject to change. Specific sites may be completed earlier.

- \* Work has been completed at six USTs on TI, including 240A, 240B, and 248A through 248D (at Site 6). These tanks were proposed for closure in a site closure report; however, further investigations and cleanup were necessary before closure could be granted. Navy completed a removal action and will monitor groundwater before requesting closure for the tanks in the future.
- \*\* Completion of additional investigation is pending Caltrans project completion (specifically UST 238).

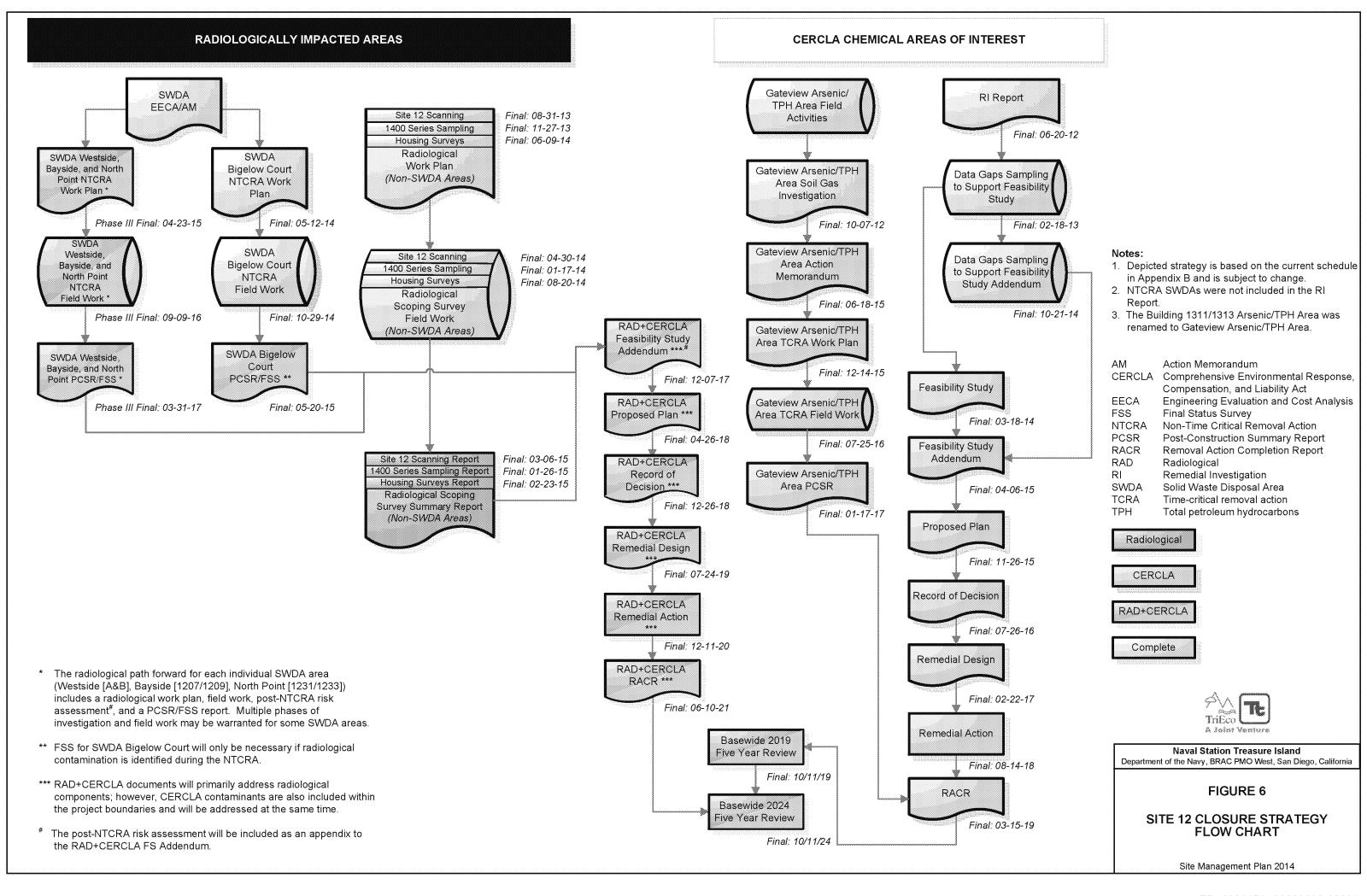


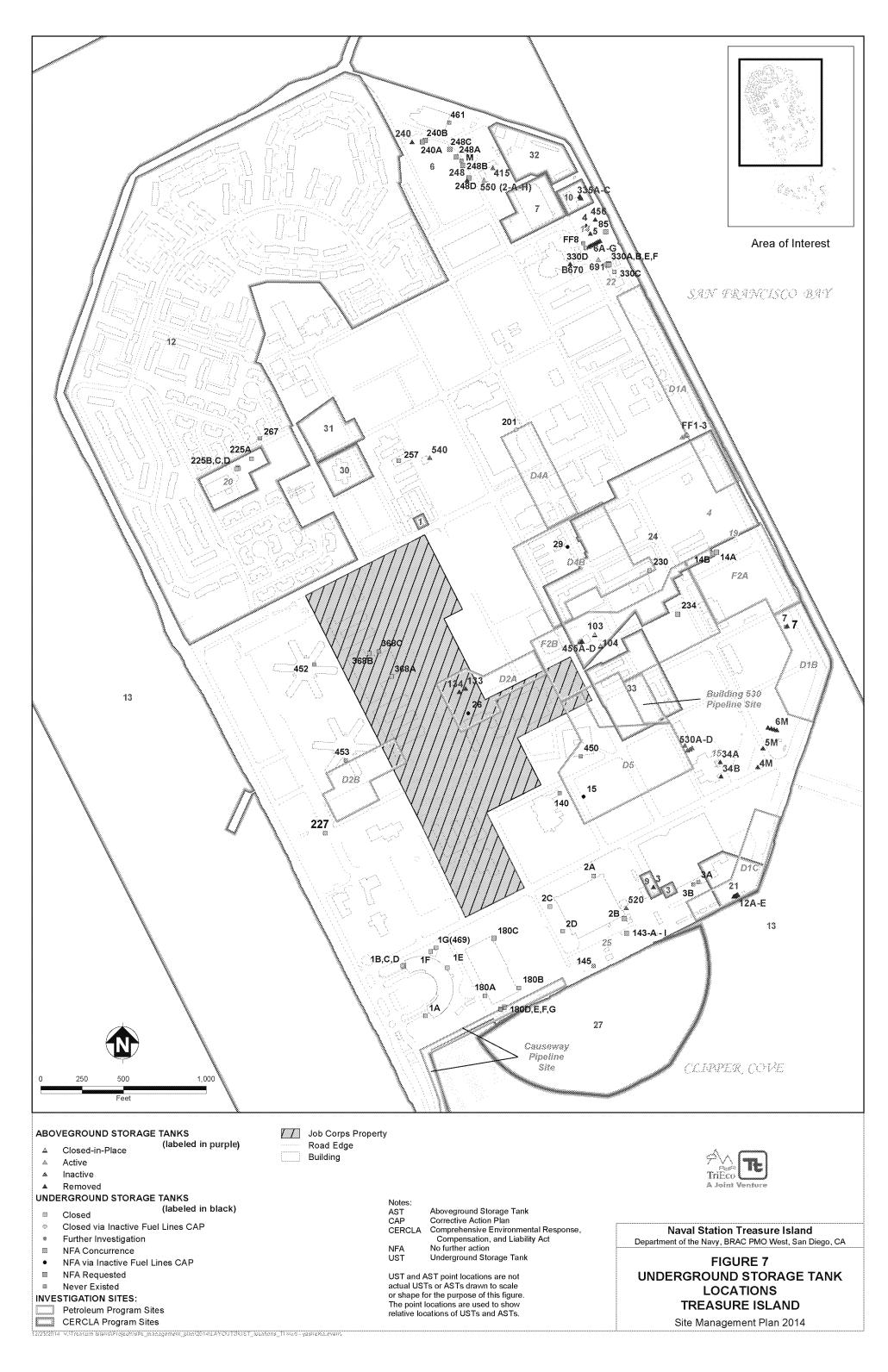
Naval Station Treasure Island
Department of the Navy, BRAC PMO West, San Diego, CA

### FIGURE 5

PETROLEUM PROGRAM SITE STRATEGY FLOW CHART

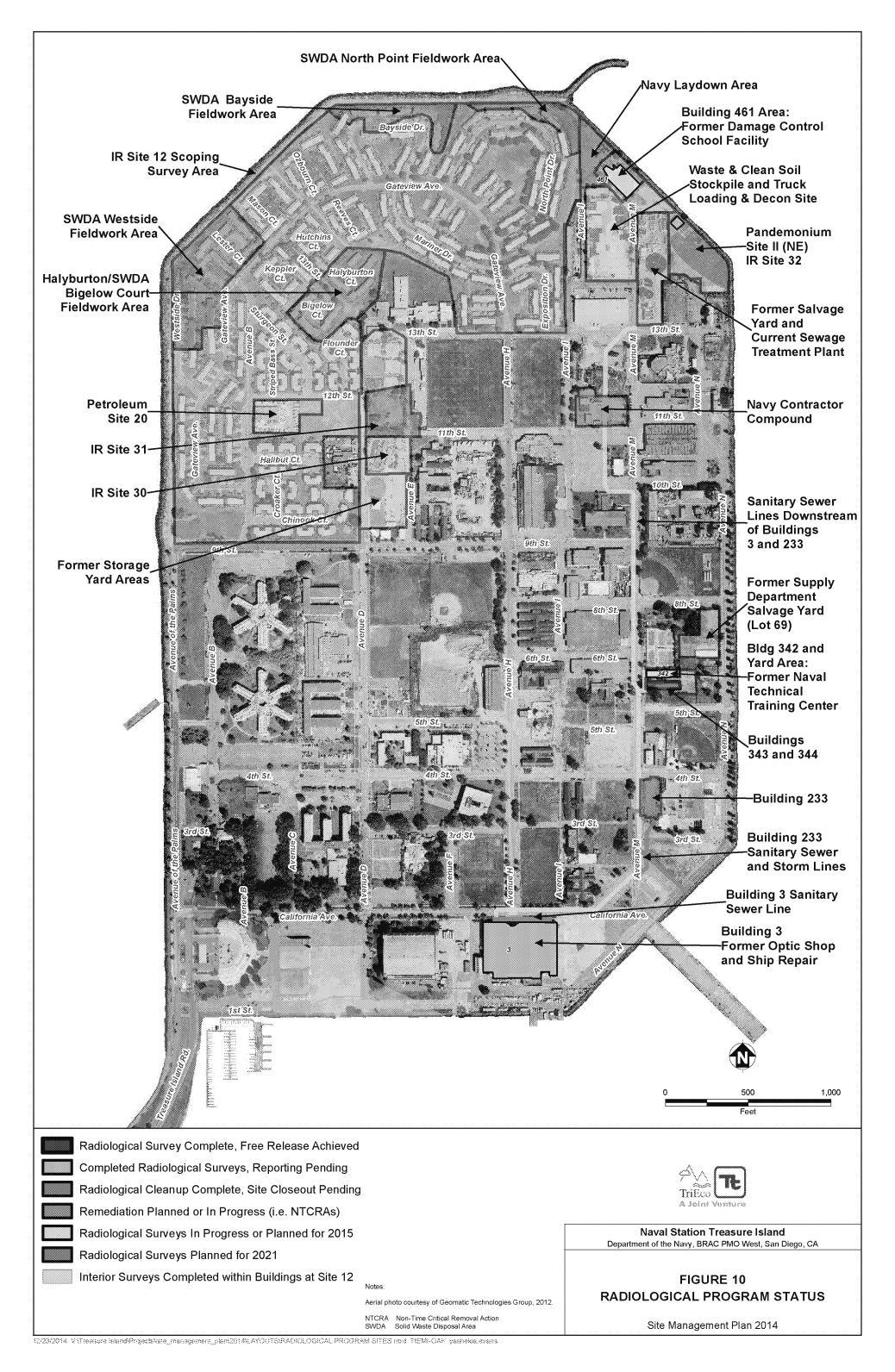
Site Management Plan 2014

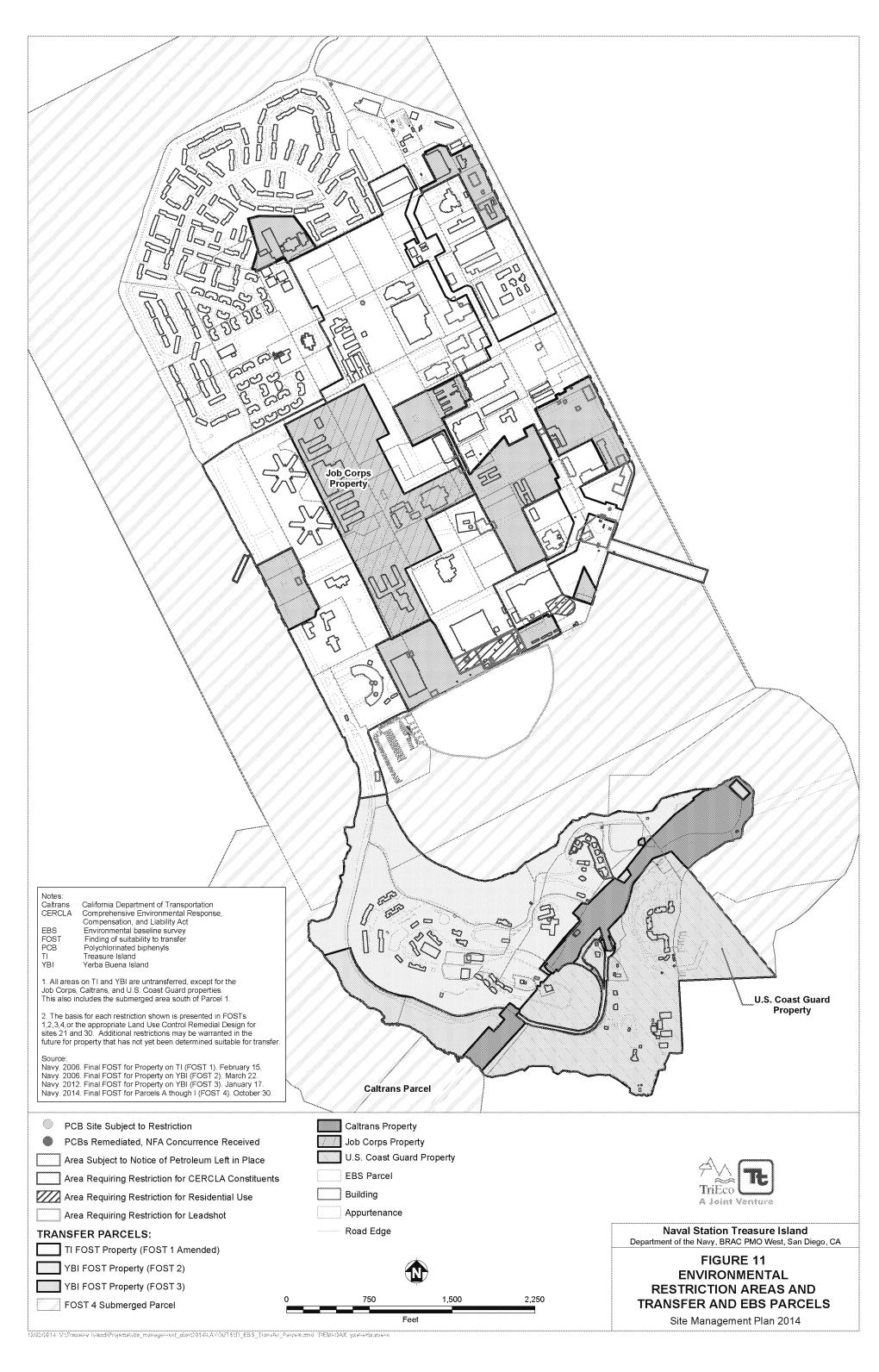


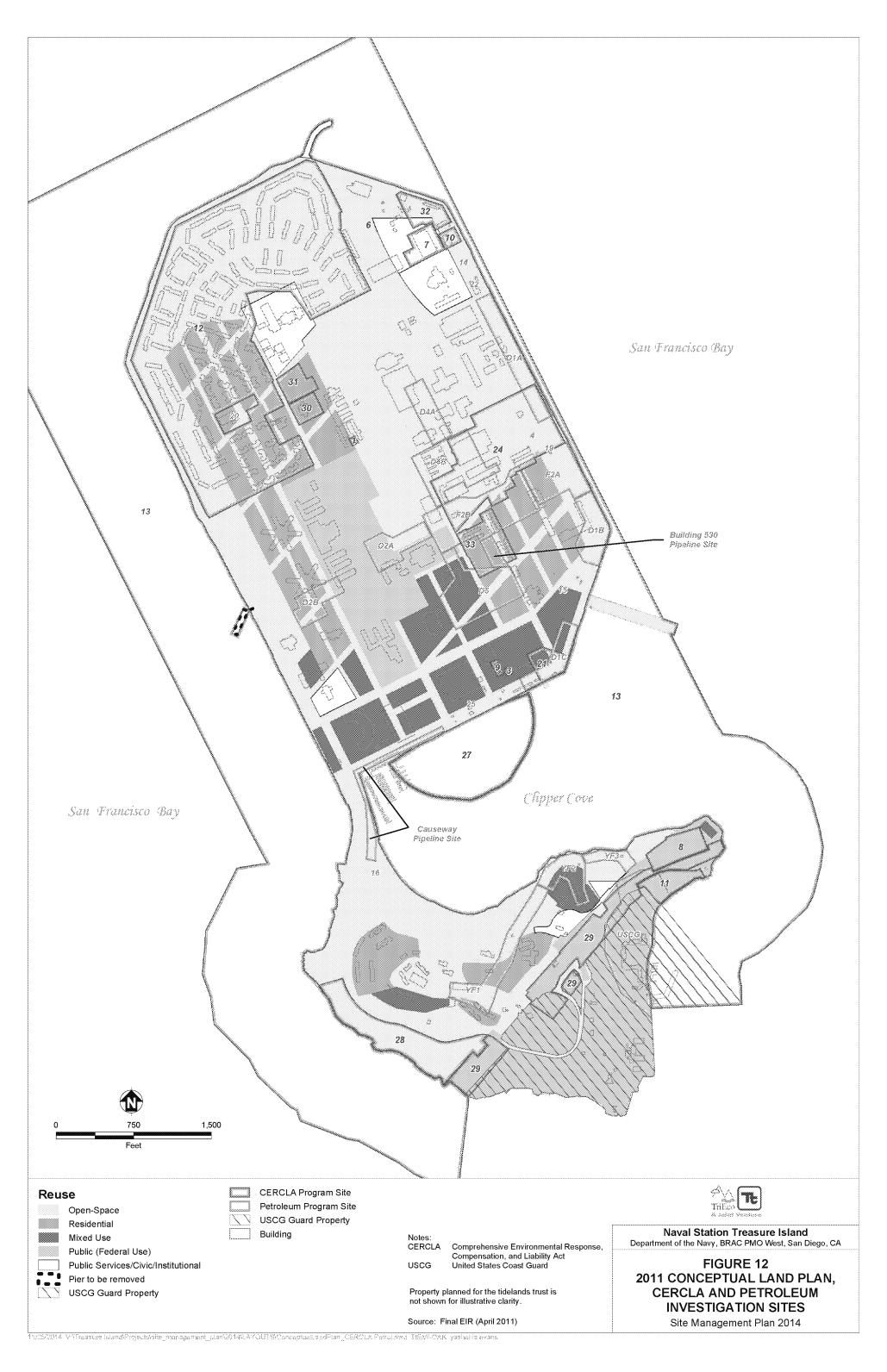












# APPENDIX A SITE SUMMARY INFORMATION

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Site 1, the Medical Clinic, is located near the middle of Treasure Island (TI) and was used for medical support services for personnel at Naval Station Treasure Island (NAVSTA TI). The Medical Clinic occupied the center wing of Building 257. The X-ray department of the Medical Clinic operated until the early 1970s. The wooden floor of Building 257 is elevated approximately 3 feet above the ground surface by concrete footings. A continuous concrete slab was poured beneath the building and was probably constructed as a mat foundation for the concrete footings. The slab was covered by approximately 3 to 12 inches of soil. During operation of the clinic, developer and corrosive fixer solutions leaked from the X-ray equipment, through the wooden floor, and seeped into the soil under the building.

During the 1995 Phase II remedial investigation (RI), a 4-foot area of high acidity below the floor was identified during field screening, which indicated the lateral extent of contamination by silver in soils. The soils were removed and disposed of off site in a Class 1 landfill. During this and subsequent site inspections, it was determined that contamination was limited to soil above the concrete slab and was not released into the environment. The Department of the Navy received site closure concurrence from the Department of Toxic Substances Control (DTSC) on March 20, 2002, and no further documentation for supplemental site inspection (SI) report was required.

Transfer Category	2006 TI Finding of Suitability to Transfer (FOST) property (FOST 1)
Regulatory Classification	Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
Acreage	0.14
Source of Concern	X-ray photo processing laboratory
Contaminants of Concern	Silver
Interim Actions	None
Current Status	Received site closure concurrence from the DTSC on March 20, 2002. No further documentation for supplemental SI report is required.
Underground Storage Tanks (UST)/Aboveground Storage Tanks (AST)	None
Site Closeout	Closed

#### SITE 3 - PCB EQUIPMENT STORAGE AREA

Site 3, the Polychlorinated Biphenyls (PCB) Equipment Storage Area, is adjacent to the south side of Building 3, about 150 feet from the shore in the southeastern corner of TI. The area is paved with about 6 inches of asphalt and was used to store and, in some instances, repair transformers used at NAVSTA TI to supply electricity to the various facilities. Some of the transformer units are known to have contained transformer fluids that contained PCBs.

Transformer fluids that contained PCBs have spilled as recently as the mid-1980s, and although they were reportedly cleaned up, no records of the cleanup are available. No PCBs were present in subsurface soils collected during the Phase I RI in 1992; only low concentrations of PCBs were detected during wipe sampling of the walls and floor of the storage area for the 1987 preliminary assessment/site inspection (PA/SI). The Navy received site closure concurrence from DTSC on March 20, 2002. No further documentation for supplemental SI report was required.

Transfer Category	Upcoming FOST
Regulatory Classification	CERCLA
Acreage	0.15
Source of Concern	Storage and repair area for PCB equipment
Contaminants of Concern	PCBs
Interim Actions	None
Current Status	Received site closure concurrence from DTSC on March 20, 2002.  No further documentation for supplemental SI report is required.
USTs/ASTs	None
Site Closeout	Closed

#### SITE 6 - FIRE TRAINING SCHOOL

Site 6, the former Navy firefighting training school, was used for nearly 50 years (1944 to 1992) for various firefighting training activities. The training school formerly included 23 buildings, six underground storage tanks (USTs), and a central training yard that consisted of burn areas lined with asphalt and concrete. Fires fueled with diesel and gasoline, magnesium, and wood were set in various mockups in the training yard and were extinguished with a mixture of water, biodegradable soap, and industrial talc. Approximately 19,000 gallons of gasoline and 32,000 gallons of diesel fuels were used each year for the firefighting training. Wastewater and unburned gasoline and diesel were collected in a concrete collector trench (installed in about 1949) situated around the perimeter of the training school yard. Wastewater and unburned gasoline and diesel that collected in the trench passed through on-site oil-water separators (OWS). Wastewater generated and treated at the site was discharged to the NAVSTA TI wastewater treatment plant (WWTP), constructed in 1968, and waste diesel and gasoline fuels were disposed of at an off-base location. Before 1973, the wastewater that flowed to the concrete collector trench was discharged to San Francisco Bay (Bay) without treatment. Approximately 14,000 gallons of petroleum residue was generated per year at the training school. Firefighting foams used at the firefighting facility were likely protein foams, which are produced by the hydrolysis of granulized keratin protein such as hoof and horn meal and chicken feathers. Protein foams are not fluorinated and do not contain perfluorooctanesulfonic acid (PFOS).

All buildings have been removed from the site. Four 1,500-gallon USTs (240A, 240B, 248A, and 248B) that contained gasoline and diesel for firefighting training were present in the northern and eastern portions of the training yard. USTs 240A and 240B were removed in 1992, and USTs 248A and 248B were removed in 1995. Two 1,000-gallon USTs (248C and 248D) previously used to store waste fuel were removed in 2002. One known aboveground storage tank (AST) (248), located near UST 248D, was removed prior to 1995. UST M, a previously suspected UST for coolant, was reported in Shaw Environmental, Inc.'s (Shaw) "Final Facilitywide Underground Storage Tank Summary Report Update," dated August 25, 2004, as never having been installed, based on document reviews and discussions with Navy personnel. Petroleum remedial activities were conducted at Site 6 between May and December Remedial activities included excavation of USTs and excavation of petroleumcontaminated soils near the USTs, pipelines, and OWS components throughout the site. Remediation also included evaluation and excavation of free product near USTs 240A and 240B. In October 2002, during petroleum remedial excavation activities at the UST 248 area, burn surfaces were identified near the former Building 464 foundation. Results from shallow soil samples collected in this area included dioxins and furans above the soil screening levels. The excavation was subsequently expanded to include removal of burn debris and sootdiscolored areas. Results from confirmation samples included dioxins and furans above the screening levels, causing Site 6 to be transferred to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) program on September 18, 2003.

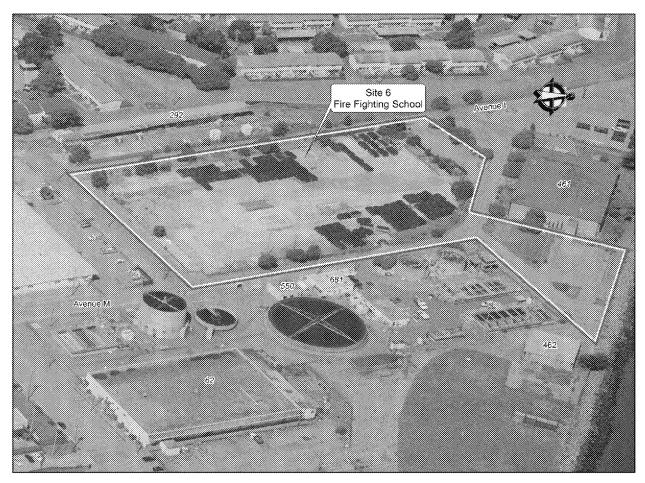
Further investigation and delineation of dioxins and furans detected in soil were conducted under the CERCLA Program as part of the environmental baseline survey (EBS) data gaps investigation in 2003. Based on investigation results, the Base Realignment and Closure (BRAC) Cleanup Team (BCT) agreed to a boundary revision for the CERCLA site at the BCT meeting on June 7, 2005. The boundary revision included a portion of Parcel T112 to the east

and north of the WWTP area where dioxins were detected in shallow soil samples. On January 24, 2007, a second boundary revision was submitted separating Site 6 (CERCLA Program) and Site 6A (the site of former USTs 240A and 240B, managed under the Petroleum Program). DTSC did not concur with the request to modify the boundary based on a lack of sufficient evidence that the Site 6A area was not affected by CERCLA related contaminants.

Other investigations included a soil gas sampling program completed in October 2004 to evaluate volatile organic compounds (VOC) in soil gas near former USTs 240A and 240B. Groundwater at Site 6 continues to be monitored semi-annually under the Basewide Petroleum Sites Groundwater Monitoring Program.

Between 2007 and 2008, a portion of Site 6 was used as a temporary excavated soil staging area. Material stored was primarily from radiologically controlled area (RCA) for the Site 12 non-time critical removal action (NTCRA). Before it was used for staging and loading activities, a baseline radiological survey was conducted. While staging and loading activities were ongoing, engineering controls were developed, air monitoring equipment was installed, and a surveillance program for health and safety was in place. In addition to engineering controls, best management practices, such as keeping soil stockpiles covered to prevent releases, were used. The soil staging and loading area activities included temporary stockpiling and loading of soil into bins at which point they were characterized and shipped off-site to a licensed disposal facility. The waste shipped off-site includes both chemical and low level radiologically impacted soil (radium-226). Since 2008, soils have not been stockpiled at Site 6. However, low-level radiological waste (LLRW) that has been characterized and placed in sealed bins was temporarily stored in the Site 6 RCA while awaiting off-site disposal. In 2014, all remaining LLRW bins awaiting off-site disposal were relocated to a paved area north of Building 461, adjacent to Site 6. The Navy is currently conducting a Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) Final Status Survey (FSS) for Site 6, which was designed to achieve free release for radiological issues.

In 2010, the Navy completed a CERCLA data gap investigation to further evaluate the nature and extent of chemicals in soil, soil gas, and groundwater. To address the concerns expressed by the California Environmental Protection Agency (Cal/EPA) San Francisco Bay Regional Quality Control Board (Water Board), the Navy completed a removal action near the 240 series USTs that were previously removed. The combined RI/feasibility study (FS) report was finalized in October 2012. The Navy distributed the final Proposed Plan/Draft Remedial Action Plan (PP/Draft RAP) on February 28, 2014, and held a public meeting on March 12, 2014. The Navy is finalizing the Record of Decision (ROD)/RAP, anticipated for distribution in January 2015.



Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

Transfer Category	
Regulatory Classification	CERCLA
Acreage	4.54
Sources of Concern	USTs, firefighting training area, OWSs
Contaminants of Concern	Dioxins and furans, total petroleum hydrocarbons (TPH), VOCs, polycyclic aromatic hydrocarbons (PAH)
Interim Actions	<ul> <li>USTs removed in 1992, 1995, and 2002.</li> <li>Floating product removal action completed in 2002.</li> <li>Petroleum corrective action of UST 240 series completed in 2013.</li> </ul>
Current Status	<ul><li>A ROD/RAP is being finalized.</li><li>FSS is being conducted.</li><li>Annual groundwater monitoring continues.</li></ul>
USTs/ASTs	<ul> <li>AST 248 and USTs 240A, 240B, 248A, 248B, 248C, and 248D: all are removed and will undergo groundwater monitoring prior to requesting no further action (NFA) concurrence.</li> <li>Previously suspected UST M received concurrence on NFA December 2, 2003.</li> </ul>
Estimated Site Closeout	CERCLA Closeout: October 2016

#### SITE 7 - PESTICIDE STORAGE AREA

Site 7 is located north of 13th Street, between Avenue M and the Bay, in the northeast corner of TI. At Site 7, Building 62, the pesticide storage building, has been used to store and handle a variety of liquid substances in the past, including pesticides, chlorinated herbicides, paint, and other unidentified fluids. Building 62 was constructed on a raised pier foundation, with the wooden floor of the building approximately 3 feet above ground surface. The pesticide storage area was on a raised wooden floor in the north end of the building. Pesticides and chlorinated herbicides were mixed and prepared for use from about 1955 until at least the early 1960s. It was reported that excess pesticide and paint fluids may have been disposed of by pouring them directly onto the ground. Information on the total volume of waste fluids disposed of on site is not available.

The Dames and Moore PA/SI (1988) reported that, between 1968 and 1976, sludge from the adjacent WWTP was spread on the ground in an area measuring about 250 feet by 100 feet southwest of Building 62 and northeast of the corner of Avenue M and 13th Street. Soils to the west of Building 62 were investigated during the Phase I RI and the supplemental SI, and NFA was recommended. The total volume of sludge spread at this site and at Site 8 was estimated to be 10 to 15 cubic yards per month, totaling 960 to 1,440 cubic yards. Part of the new WWTP was constructed in the area where the sludge was reportedly spread. Boring logs for geotechnical borings advanced as part of the expansion of the WWTP did not indicate that sludge was encountered.

The Phase I RI report (1992), the Phase IIB RI report (1997), and a supplemental SI (2002) included an investigation of the soils outside and beneath the building. A subsequent request for closure was submitted as a letter report to the DTSC on October 3, 2005, and concurrence with NFA was granted November 1, 2005.

Transfer Category	Partially within FOST 4 and Upcoming FOST
Regulatory Classification	CERCLA
Acreage	2.22
Source of Concern	Pesticide storage; WWTP sludge
Contaminants of Concern	Metals, pesticides, and herbicides
Interim Actions	None
Current Status	<ul> <li>Supplemental SI report was submitted for NFA October 18, 2002.</li> <li>Letter report requesting closure following a discussion of the adjacent Site 32 results submitted October 3, 2005.</li> </ul>
	Received site closure concurrence from DTSC on November 1, 2005.
USTs/ASTs	None
Site Closeout	Closed

# SITE 8 - ARMY POINT SLUDGE DISPOSAL AREA

Site 8, the Army Point Sludge Disposal Area, was used for approximately 8 years, between 1968 and 1976, for disposal of sludge from the WWTP on TI. Prior to 1968, the site contained buildings used as barracks for enlisted personnel. Waste sludge was transported from the WWTP and was spread on the ground between the foundations of former buildings at Site 8 to dewater the sludge. The same type of waste sludge was disposed of at Site 7. The final disposition of the sludge is not known; the dried sludge may have been allowed to decay in place or may have been removed. Given the shallow depth of sandstone and shale bedrock at the site, on-site burial is unlikely.

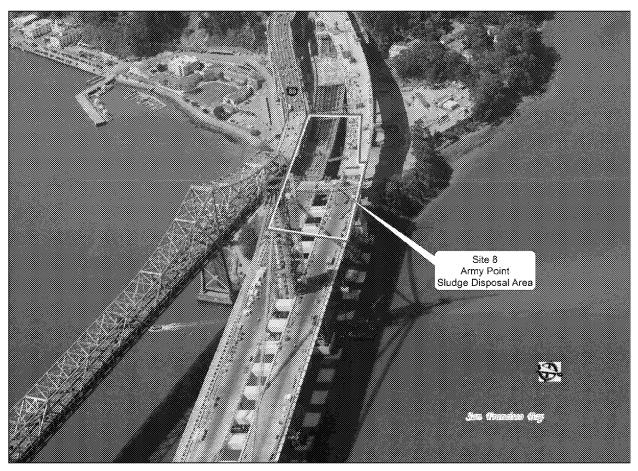
Because the site was identified in the PA, an SI was completed in 1990 to assess subsurface soils potentially contaminated by chemicals in the waste sludge deposited in the eastern portion of the site. Based on the conclusions in the SI report, further investigation of the site was warranted to characterize the lateral and vertical extent of contamination. In 1997, the draft RI report included results of additional investigations conducted during Phase I and Phase IIB of the RIs completed in 1992 and 1995. The RI report noted potential beryllium and lead contamination at the site; however, concentrations of beryllium and lead were within the target risk range or below the point of departure. Pesticides/PCBs and semivolatile organic compounds (SVOC) were determined to not be contaminants of concern.

In June 2001, independent of the Navy's Installation Restoration (IR) Program, California Department of Transportation (Caltrans) collected soil samples at 13 discrete surface soil locations on Yerba Buena Island (YBI) as part of the San Francisco-Oakland Bay Bridge (Bay Bridge) construction project. Results of Caltrans' soil sampling conducted within the Site 8 boundaries indicated that concentrations of lead ranged from less than 50 to 170 milligrams per kilogram. Based on the Caltrans sampling report, the Navy concluded that existing data were sufficient to characterize the lateral and vertical distribution of lead in soils at Site 8. In December 2001, the Navy completed a validation study to confirm results of the screeninglevel ecological risk assessment (SLERA) included in the 1997 RI report for the peregrine falcon (Falco peregrinus). The study concluded that no unacceptable risk was posed to the falcon at Sites 8, 11, 28, and 29. The surface soil on the site may be contaminated by lead and other metals as a result of vehicle emissions, as well as bridge and ramp painting and maintenance. In 2002, additional lead investigations were conducted to (1) fully delineate the extent and magnitude of lead in surface soils at Sites 8, 11, and 29; (2) collect additional soils data for comparison to the validation study results; and (3) provide additional data, if needed, for the human health risk assessment (HHRA) presented in the 1997 RI report for Sites 8, 11, and 29.

The Navy owned the property comprising the ramps and areas beneath the bridge until 2001, when the Federal Highway Administration (FHWA) transferred the bridge right-of-way and ramps from the Navy to Caltrans. Caltrans used this area during construction of the new eastern span of the Bay Bridge. Two footings for the Bay Bridge were installed within the site boundaries of Site 8; the area of site surface soils disturbed by Caltrans construction was estimated by visual inspection in April 2005. The actual footing areas were excavated to a depth of 80 feet.

Two boundary changes have occurred at Site 8: the first, presented in October 2004 to the BCT, eliminated the northwest corner of Site 8 to allow for transfer of the property as part of the YBI parcel, independent of regulatory closure of Site 8. The second, made in June 2005, eliminated overlap between CERCLA Site 8 and Site 29. Field inspections of Site 8 were performed in April and October of 2006 to verify removal of contaminated soil by Caltrans and to document ongoing construction.

The Navy finalized the interim RI report for Sites 8 and 29 in March 2009. The Navy will discuss resuming work on the site with Caltrans following demolition of the old eastern span, completion of the freeway access ramps, and demobilization from staging/laydown areas. The schedule in Appendix B is based on Caltrans' quarterly schedule, which indicates bridge activities will be complete in 2015. Once Bay Bridge activities are complete, an RI addendum will need to be prepared for the site to continue with the CERCLA process.



Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

Transfer Category	On Caltrans-owned property
Regulatory Classification	CERCLA
Acreage	3.12
Source of Concern	WWTP sludge disposal area; lead-based paint (LBP) from the Bay Bridge
Contaminants of Concern	SVOCs and metals
Interim Actions	None
Current Status	<ul> <li>Interim RI report (for Sites 8 and 29) was submitted in March 2009.</li> <li>Navy will discuss site closeout with Caltrans after bridge activities are complete.</li> </ul>
USTs/ASTs	None
Estimated Site Closeout	January 2020

#### SITE 9 - FOUNDRY

Site 9 is adjacent to the southern corner of Building 3, about 150 feet from the shore, in the southeastern corner of TI. The site, which contains Building 41 (the Foundry), has been used for multiple operations since the early 1940s. The indices of TI buildings from 1943 and 1947 list Building 41 as a forge and foundry; metals are the most likely contaminant sources from the foundry. Building 41 was listed as a paint shop from at least 1952 to 1981. One floor drain and sump, representing a possible discharge point, was observed next to the paint booth when Building 41 was inspected during the Phase I RI. Paints used at this facility are known to have contained lead- and zinc/chromium-based pigments. In addition, two concrete trenches, apparently remaining from a hydraulic lifting system, are present in the large middle room and are evidence that vehicle maintenance may have been performed there. A 30-gallon storage tank, presumably used to contain hydraulic oil for use with the hydraulic lift, is located in a concrete-lined pit at the eastern end of one trench. From 1981 to 1987, the building was used as a welding training school by the Navy Technical Training Center. In 1994, the building was used for small-boat maintenance, primarily body work. It is believed that the outdoor areas have been paved for most of the building's existence.

The RI report was finalized in March 2005. The RI concluded the Navy should pursue closure of Site 9 through a no action ROD. A PP outlining the no action ROD was submitted for public comment September 29, 2006, and a public meeting was held October 17, 2006. The public comment period closed October 31, 2006. A no action ROD was signed on October 2, 2007.

Transfer Category	Upcoming FOST
Regulatory Classification	CERCLA
Acreage	0.28
Source of Concern	Potential spills or disposal of hazardous materials; potential discharge of wastes to the floor drain and sump in Building 41; potential release of hazardous constituents from oily waste contained in concrete-lined trenches from a former hydraulic lift system inside Building 41.
Contaminants of Concern	Iron, benzo(a)pyrene, dibenz(a,h)anthracene
Interim Actions	None
Current Status	No action ROD signed on October 2, 2007.
USTs/ASTs	AST 3; removed
Site Closeout	Closed

#### SITE 10 - BUS PAINTING SHOP

Site 10 includes Building 335, the Bus Painting Shop, and is located in the northeastern section of TI, north of 13th Street and between Avenue N and the Bay. Building 335 was constructed during the mid-1940s and operated as a bus painting shop through the 1950s. The building may have also been used for paint mixing for an unspecified period. Handling practices reported at similar facilities on NAVSTA TI indicate that waste paints, thinners, and solvents may have been released onto the ground near Building 335. Building 335 was also reportedly used for storing, mixing, and handling pest control solutions (pesticides and chlorinated herbicides) during an unspecified time period. Pest control solution residues were reportedly washed from containers and spraying equipment. It was also reported that Building 335 housed a self-service steam rack used to clean vehicles, drums, garbage cans, and related equipment. A floor drain was reportedly used in the building and was connected to the storm water sewer system, thus potentially conveying contaminants directly into the Bay. An inspection of the building in March 1994 revealed a cement-patched area that may have been the former location of the floor drain.

Petroleum Program investigations at Site 14/22 revealed dioxin-contaminated surface soil along the eastern boundary of Site 10 associated with a shallow burn layer. An exploratory investigation of the dioxins in soils was conducted in the fall of 2005, and contaminated soils were removed. The analytical results were reviewed with the BCT and, based on concurrence from DTSC, the trench was backfilled with clean soil. The removal of the dioxin in soils was documented in the 2006 PP for Site 10.

The RI report was finalized in March 2005. The RI concluded the Navy should pursue closure of Site 10 through a no action ROD. A PP outlining the no action ROD was submitted for public comment September 29, 2006, and a public meeting was held October 17, 2006. The public comment period closed October 31, 2006. A no action ROD was signed October 2, 2007.

Transfer Category	FOST 4
Regulatory Classification	CERCLA
Acreage	0.68
Source of Concern	Maintenance yard; pesticide storage; paint mixing
Contaminants of Concern	Iron, benzo(a)pyrene, dibenz(a,h)anthracene
Interim Actions	Dioxin-contaminated soils removed 2005.
Current Status	No action ROD signed October 2, 2007.
USTs/ASTs	ASTs 335A, 335B, 335C removed
Site Closeout	Closed

# SITE 11 - YBI LANDFILL

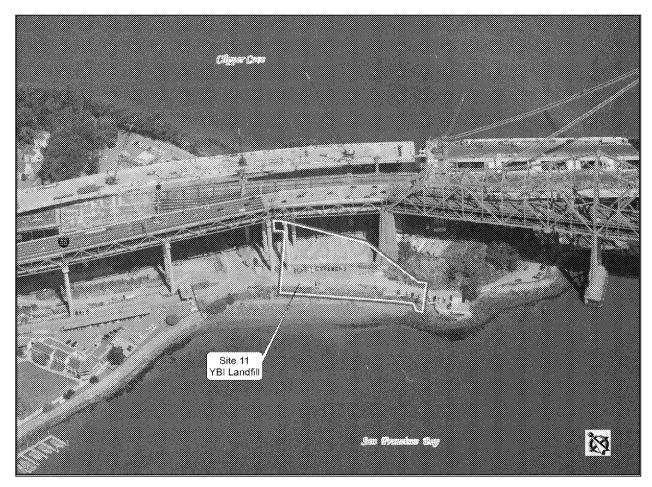
Site 11, the YBI Landfill, is an approximately 200-foot by 600-foot former marsh area on the southern side of the eastern tip of YBI. This site was identified as a disposal area in a 1935 topographic map. The exact dates of sanctioned landfill operation have not been established. Signs in the area currently prohibit dumping. The types and amounts of waste disposed of at the site are not well documented. During a site visit in April 1994, buried concrete debris was observed in an eroded section of land near the beach at the easternmost extent of the landfill area. This buried debris is evidence that landfilling had occurred in that area. The material disposed of at the site is solid wastes from operations at YBI and TI, although the exact nature of the material is unknown. Miscellaneous household waste was noted in test pits completed during the Phase I RI. During evaluation of the extent of the landfill, construction debris was found in numerous trenches and test pits completed in 2002. Petroleum-contaminated sand was found in the landfill underlying a burn layer. Groundwater contamination has been detected at the site and appears to originate from the buried materials.

In December 2001, the Navy completed a validation study to confirm results of the SLERA included in the 1997 RI report for the peregrine falcon. The study concluded that no unacceptable risk was posed to the falcon at Sites 8, 11, 28, and 29.

In 2002, additional lead investigations were conducted to (1) fully delineate the extent and magnitude of lead in surface soils at Sites 8, 11, and 29; (2) collect additional soils data for comparison to the validation study results; and (3) provide additional data, if needed, for the HHRA in the 1997 RI report for Sites 8, 11, and 29.

Additional sources of contamination at the landfill include five USTs (270 and 204A through 204D) and a fuel pipeline. UST 270, which was not within the landfill area, has been removed. The other four USTs, 204A through 204D, were located in the south-central portion of the site and were removed in September 2003. The Water Board concurred that NFA was required with respect to the USTs in a letter dated June 17, 2004. The U.S. Coast Guard (USCG) Petroleum Program Site extends into the Site 11 boundary, and the USTs and fuel lines formerly located within the USCG site may be sources of contamination. Further investigations at the USCG site are pending.

The surface soil on the site may be contaminated by lead and other metals as a result of vehicle emissions, as well as bridge and ramp painting and maintenance. In June 2005, the boundary was changed to eliminate the overlap between Site 11 and Site 29. Construction activities associated with the new Bay Bridge have greatly altered the landfill surface, which is currently being used by Caltrans as a laydown area for bridge construction materials. The final interim RI report for Site 11 was submitted January 27, 2010. The Navy will discuss resuming work on the site with Caltrans following demolition of the old eastern span, completion of the freeway access ramps, and demobilization from staging/laydown areas. The schedule in Appendix B is based on Caltrans' quarterly schedule, which indicates bridge activities will be complete in 2015. Once Bay Bridge activities are complete, an RI addendum will need to be prepared for the site to continue with the CERCLA process.



Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

Transfer Category	On Caltrans-owned property
Regulatory Classification	CERCLA; UST
Acreage	2.46
Source of Concern	Landfill solid waste (unknown type); USTs and fuel pipeline; lead-based paint (LBP) from the Bay Bridge
Contaminants of Concern	TPHs, polycyclic aromatic hydrocarbons (PAHs), VOCs, and metals
Interim Actions	None
Current Status	<ul> <li>Interim RI report (Site 11) was submitted January 27, 2010.</li> <li>Navy will discuss site closeout with Caltrans after bridge activities are complete.</li> </ul>
USTs/ASTs	USTs 270, 204A through 204D removed
Estimated Site Closeout	<ul> <li>CERCLA closeout: July 2020</li> <li>USTs 204A through 204D received regulatory concurrence from the Water Board on June 17, 2004 (NFA).</li> <li>UST 270 received regulatory concurrence from the Water Board February 10, 2004 (closed).</li> </ul>

#### SITE 12 - OLD BUNKER AREA

Site 12, the Old Bunker Area, is located on the northwestern portion of TI and occupies about 93 acres of the island. Site 12 is currently the TI housing area. Site 12 is a flat area, consisting of grassy lawns, paved roads, and residential housing units with back yards. The area was used for military housing since about 1968. Site 20, a petroleum site, is located within the Site 12 area and encompasses 1.6 acres that is fully encircled by Site 12.

#### Solid Waste Disposal Areas

Several ammunition bunkers were located within Site 12 before the area was developed as military housing. As early as 1945, nine large ammunition bunkers and 12 smaller bunkers were visible along the northern end of TI. These bunkers were constructed in 1944 as reinforced concrete structures covered by sand, with a chert rock and clay surface. A backfilled blast wall, the same height as the bunkers, existed along the open side of the structures. Observations documented during soil trenching and boring, before the 1965 housing foundations were excavated, indicated that discrete areas between and around the bunkers were the sites where incineration and disposal of solid waste occurred. Items recovered from these discrete disposal areas included loose rubbish, bottles, wire rope, paper, and steel. These areas have been divided into four identified solid waste disposal areas (SWDA): SWDAs Bayside (formerly named 1207/1209), North Point (formerly named 1231/1233), and Westside (formerly named A&B) occur along the shoreline, and the fourth is in the central portion of Site 12, at Bigelow Court.

Hazardous material from portions of the four SWDAs was removed in 1999, 2000, and 2001, but some hazardous material remains in soil in and adjacent to these areas. An engineering evaluation/cost analysis (EE/CA) for a NTCRA at the SWDAs was finalized October 12, 2006, followed by a public meeting October 24, 2006.

An NTCRA began in May 2007 at three SWDAs along the shoreline. The Navy is currently excavating and screening soils for chemical and radiological contaminants. During the NTCRA, low-level radiological objects (LLRO), containing radium-226, have been found within the SWDAs. In addition, LLROs have been found outside of the SWDAs and were likely distributed during grading for housing construction. When all removal action activities are complete, the Navy will conduct a residual risk evaluation for the SWDAs that will be included in an FS addendum. In addition, an FSS of the SWDAs will be performed in accordance with MARSSIM (Revision 1 August 2000, with June 2001 updates). The Navy estimates that the NTCRA field activities will be completed in 2016. The NTCRA for some of the SWDA areas will be completed in two (Bayside and North Point) or three phases (Westside) of work based on funding and contracting complexity. Buildings 1121, 1123, 1321, and 1323 were demolished in 2013, and Buildings 1119, 1125, 1209, 1211, and 1319 were demolished in 2014 to allow the NTCRA to continue in the area of the SWDAs. Buildings 1207, 1213, 1231, and 1233, are planned for demolition in early 2015 to allow the NTCRA to continue in SWDAs Bayside and North Point. Please also see page A-56, summary of Radiological Program under Compliance and Basewide Program section.

#### **SWDA Bigelow Court**

SWDA Bigelow Court, located in the central portion of Site 12, was identified as a SWDA during sampling activities in 2001. A removal action was conducted on the eastern side of Bigelow Court in 2000 as a part of a larger removal action in Halyburton Court. Bigelow Court was included in the 2006 EE/CA, though the removal action was delayed until 2014. Buildings 1101 and 1103, formerly located in SWDA Bigelow Court, were demolished and excavations were completed in August 2014. One LLRO was identified and extracted from beneath the concrete slab of Building 1101; two additional LLROs were removed from the SWDA Bigelow Court excavations. The Navy is preparing the FSS report and PCSR for the Bigelow Court Area.

#### **Halyburton Court**

Review of historical records and aerial photographs also helped identify an area within the interior of Site 12 as a former storage yard, located near what is currently referred to as Halyburton Court. This former storage yard differs from the SWDAs because waste was not intentionally disposed of in this area. Results from sampling in 2000 indicated soils in the former storage yard area contained PCBs and PAHs at concentrations in excess of the action levels protective of human health. Based on these results, the Navy performed a removal action in the former storage yard area between 2000 and 2001. An investigation of PCBs in soil, soil gas, and indoor air was conducted during December 2005 and July 2006 because PCBs were left in place beneath the buildings in Halyburton Court. After further evaluation, the Navy concluded the proposed removal action would not significantly reduce the risk at Halyburton Court, and the EE/CA, specifically for Halyburton Court, was cancelled. The human health risk in the area was evaluated as part of the Site 12 RI report in 2012.

# Investigation of Arsenic in Groundwater at Gateview Arsenic/TPH Area

Investigations at Site 12 identified elevated concentrations of arsenic in groundwater near Buildings 1311 and 1313. This area is called the Gateview Arsenic/TPH Area (formerly referred to as Building 1311/1313 Area). In addition to the elevated arsenic concentrations in groundwater, elevated TPH concentrations in soil and groundwater have been reported. A 1971 report indicated an "abandoned, buried oil tank" near Buildings 1311 and 1313. The report also indicated the UST was to be removed during grading of the site for housing construction. There is no documentation of removal or closure of the UST.

An automobile service station was located directly east of the current Building 1311 location during the 1938 to 1939 Golden Gate International Exposition. Fuel tanks associated with the service station were removed around 1944. The abandoned oil tank described above and the former service station may be the sources of TPH contamination for the Gateview Arsenic/TPH Area; however, diesel is the predominant fuel detected in groundwater, and the service station apparently stored and dispensed gasoline. It is possible that diesel fuel may have been stored and dispensed at this station as well because minimal service station record keeping was likely conducted during this era.

A technical memorandum published in 2001 attributed the elevated arsenic concentrations to the reducing environment created by the biodegradation of TPH at the site. A bench-scale treatability study of arsenic in groundwater has been completed. A pilot-scale treatability study was conducted that also addressed free product that was observed in the area. Review of historical drawings indicated former buildings in the area may have had associated USTs.

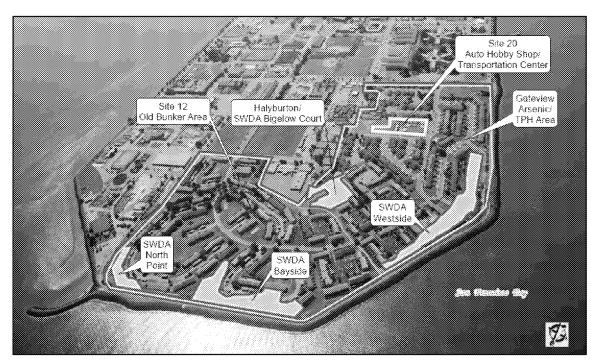
Groundwater wells have been installed and have been monitored for TPH. Soil gas sampling was conducted in November 2010 near Building 1313 and again in July 2012 near Buildings 1311 and 1313. Based on the presence of TPH with arsenic in groundwater, the Navy ceased pilot study activities in 2011, and further action in this area was addressed in the FS. However, the Navy will address this area in a time-critical removal action in 2015/2016.

## Remedial Investigation / Feasibility Study

Between 1998 and 2010, the Navy collected 4,039 samples of soil, soil gas, and groundwater. The RI report for Site 12, excluding the SWDAs, was finalized on June 20, 2012. The Navy conducted data gap sampling in February 2013 and prepared an FS that was finalized in March 2014. Additional data gap sampling was recommended and was performed in September and October 2014. An FS addendum is being prepared to incorporate the results of the 2014 data gaps sampling investigation.

# <u>Radiological</u>

The Navy conducted a gamma walkover survey investigation of areas within Site 12 and outside the known SWDAs in late 2013 and early 2014; a summary report was issued in December 2014. In addition, soil sampling within the 1400 series housing of Site 12 was conducted from November to December 2013 to collect additional radiological information; a draft summary report of the soil sampling was issued in November 2014. The Navy completed interior scans of residential buildings at Site 12 in August 2014. A total of three LLROs were identified beneath the foundation of three units during the interior scanning fieldwork. A draft summary report for the interior housing scans was issued in November 2014. Also refer to the summary of the Radiological Program on page A-56.



Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

Transfer Category	
Regulatory Classification	CERCLA
Acreage	93.2
Source of Concern	Incinerator; debris disposal areas; former storage yard
Contaminants of Concern	PCBs, PAHs, dioxins, TPH, metals, Radium-226, and debris
Interim Actions	<ul> <li>First soil removal action conducted at SWDA Bayside between June and August 1999 for constituents including lead, antimony, arsenic, copper, dioxins, and TPH.</li> <li>Second soil removal action conducted at SWDA Westside during the summer 1999 for constituents including lead, aluminum, copper, and TPH.</li> <li>Third soil removal action conducted at former storage yard at Halyburton and Bigelow Courts in 2000 to 2001 for constituents including PCBs, PAHs, and benzo(a)pyrene equivalent.</li> </ul>
	<ul> <li>Fourth soil removal action conducted in areas of Buildings 1252, 1254, 1246, 1248, and 1413 in October and November 2001 for constituents including PCBs and PAHs.</li> </ul>
Current Status	<ul> <li>NTCRA of SWDAs is under way (with MARSSIM FSS surveys).</li> <li>FSS and PCSR for NTCRA at SWDA Bigelow Court being prepared.</li> <li>Summary reports being prepared for radiological surveys of common areas outside the SWDAs and residential units in Site 12.</li> <li>FS addendum will be prepared to incorporate additional data gaps sampling.</li> <li>Action Memorandum for TCRA at Gateview Arsenic/TPH Area is being prepared.</li> </ul>
USTs/ASTs	One previously suspected UST received NFA concurrence from the Water Board on December 2, 2003.
Estimated Site Closeout	June 2021

## SITE 13 - STORM WATER OUTFALLS/OFFSHORE SEDIMENTS

Site 13 comprises the offshore areas around the perimeter of NAVSTA TI and Clipper Cove. It excludes Site 27, the former skeet range located in Clipper Cove, and a submerged parcel that has been reassigned to the USCG. In 1992, the Navy collected data to assess whether chemicals were moving off shore via the storm water outfalls. Based on the results of this storm water investigation, it was determined that chemicals may have been released to the offshore areas and that further investigation of Site 13 was warranted. A second investigation was therefore conducted in 1996 to further characterize the sources, extent, and potential toxicity of chemical contamination in the offshore sediments. The results of these two offshore investigations indicated that metals, PCBs, PAHs, dichlorodiphenyltrichloroethane (DDT), and other organic compounds were the chemicals most frequently detected in the sediment samples.

In 2001 and 2002, two additional investigations were conducted of the sediments adjacent to possible onshore source areas at Sites 11 and 12, where burned solid waste or PCB-contaminated material may have been deposited. Offshore samples were collected and analyzed for TPH and PCBs. Analytical results showed concentrations of metals, PCBs, and TPH in the offshore sediments were not elevated. These studies indicated that no additional investigation was needed. A PP for Site 13 was prepared and released to the public on April 1, 2004. Results of four offshore sediment investigations were used to conduct an ecological risk assessment, which concluded the offshore sediments at Site 13 do not pose an unacceptable risk to the environment. After a public meeting that presented the no action alternative, a ROD was drafted and signed on April 7, 2005.

Transfer Category	FOST 4 (excluding Site 27)
Regulatory Classification	CERCLA
Acreage	520
Source of Concern	Storm drains, storm water outfalls
Contaminants of Concern	Metals, PAHs, PCBs, DDT, and TPH
Interim Actions	None
Current Status	No action ROD signed on April 7, 2005.
USTs/ASTs	None
Site Closeout	Closed

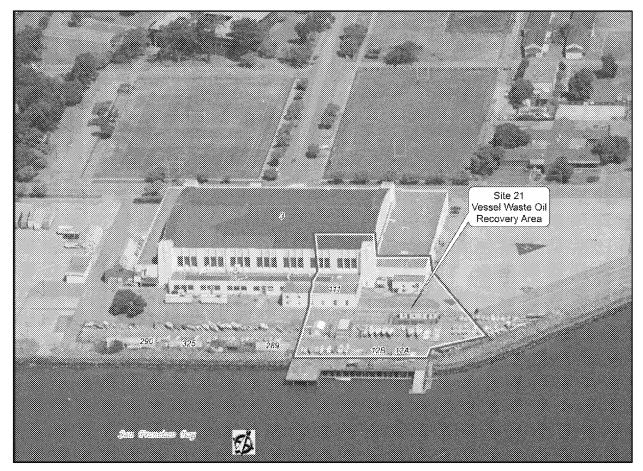
#### SITE 21 - VESSEL WASTE OIL RECOVERY AREA

Site 21, the Vessel Waste Oil Recovery Area, is along the southeastern edge of TI, adjacent to Clipper Cove. Site 21 was originally a 400-foot-long by 75-foot-wide area along the shoreline. The site boundary has since been expanded to include the southeast corner of Building 3 and the open area between Building 3 and the shoreline.

The vessel waste oil recovery area operated between 1946 and 1995. Waste oil from ships was unloaded into floating cylindrical steel shells called "donuts." From the "donuts," the waste oil was transferred to an onshore oil-water separation facility at Site 21. The separation facility consisted of five aboveground tanks, each with a capacity of 2,000 gallons. These tanks were removed in 1995. The separation system was maintained on a paved area that was reportedly heavily stained, but little staining is still visible. Analytical data from sampling of monitoring wells at Site 21 demonstrated no pattern of elevated levels of TPH in groundwater.

Building 3, near the waste oil recovery area, was used for various activities, including aircraft maintenance. A dip tank to clean aircraft parts was reportedly located at the southeastern corner of Building 3. No records are available that describe the types and quantities of chemicals used or disposed of during parts cleaning operations; however, use of the solvents tetrachloroethene (PCE) and trichloroethene (TCE) as degreasing agents for cleaning metal parts was widespread at the time of Navy operations. Contamination of groundwater at Site 21 is believed to be from small spills of PCE and TCE in the dip tank area during former parts cleaning operations.

A treatability study to evaluate cleanup alternatives for contaminated groundwater at Site 21 was ongoing between August 2005 and August 2010. The treatability study report was completed in March 2011. An RI report for Site 21, finalized in February 2007, recommended an FS be conducted using data collected from treatability studies of in situ treatment technologies. The focused FS (FFS) was submitted in February 2009. A PP was prepared in October 2011, and a public meeting was held November 2, 2011, to outline the Navy's preferred alternative of institutional controls (IC) for the site. At the request of the BCT, the Navy conducted a soil gas investigation at the site in February 2012 and finalized the HHRA addendum in November 2012 to present the results of the soil gas sampling. The ROD/RAP was finalized in February 2013. The selected remedy consisted of ICs to address chlorinated VOCs in groundwater and continued soil gas and groundwater monitoring to confirm that the human health risk from the vapor intrusion pathway remains within or below the risk management range for non-residential users. Groundwater and soil gas monitoring will continue through at least the first 5-year review. The land use control (LUC) remedial design (RD)/remedial action work plan (RAWP) was finalized in October 2013. Site 21 was included in the first basewide 5-year review that was finalized on December 15, 2014. The Navy is currently finalizing a remedial action completion report (RACR).



Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

Transfer Category	
Regulatory Classification	CERCLA, UST
Acreage	2
Source of Concern	OWS; ASTs; petroleum, oil, lubricants lines; dip tank
Contaminants of Concern	VOCs and TPH
Interim Actions	Treatability study for VOC source area
Current Status	<ul> <li>Groundwater and soil gas monitoring continues.</li> <li>LUC monitoring continues.</li> <li>RACR is currently being finalized.</li> <li>Site 21 was included in the first basewide 5-year review in December 2014.</li> </ul>
USTs/ASTs	ASTs 12A through 12E removed
Estimated Site Closeout	January 2015

#### SITE 24 - DRY CLEANING FACILITY

Site 24 is located on the southeastern part of TI and extends from the central portion of the island east, toward the Bay. Site 24 encompasses two former CERCLA sites, Sites 5 (the Old Boiler Plant) and 17 (ASTs 103 and 104), which are located along the southwest boundary of Site 24. Petroleum sites within Site 24 include Site 4/19, the former Hydraulic Training School/Refuse Transfer Area; Inactive Fuel Line sites D1A, D4B, F2B, and a small portion of Site F2A; Building 530 Fuel Line Site; and former UST 230.

#### Other Sites within the Site 24 Boundary

Former Sites 5 and 17 were incorporated into Site 24 for further investigation. Site 5 included Building 102, a boiler plant operated from 1943 through 1968, when it was demolished. Various chemicals may have been used during the boiler operations to prevent scaling. Typical chemicals used to prevent scaling include morphaline, caustic soda, sulfite, and brine. It is reported that building debris, including asbestos-containing materials (ACM), were buried where the building stood. Pipeline trenching in 1987 uncovered the buried debris, including asbestos insulation. The debris was not removed, but instead was backfilled and covered with asphalt. Following recommendations in the 1988 PA/SI to further evaluate the area, ground-penetrating radar (GPR) was used to delineate the disposal area. Soil samples were collected from borings and a test pit and analyzed for asbestos. No asbestos was observed during field activities, and no asbestos was detected in the soil samples collected. It was decided in January 2001 that the CERCLA constituents within the Site 5 boundary will be considered a part of Site 24 and evaluated in the Site 24 RI report. The petroleum-related constituents were evaluated as part of Fuel Line Site F2B, which has since been closed by the Water Board on August 19, 2005.

Site 17 contains the area surrounding ASTs 103 and 104. The ASTs are each 200,000-gallon-capacity diesel fuel storage tanks, approximately 20 feet in diameter and 20 feet high. They are surrounded by a concrete paved area and a 4-foot-high berm built sometime after 1983. A small pump house, Building 105, is situated between the two tanks. The ASTs were installed before 1943, decommissioned in 1993, and emptied and cleaned in 1996, but have not yet been dismantled. Historical releases in the area have been documented. A second possible source of contamination is waste oil, possibly containing PCBs, which was reportedly spread at least once around the base of both ASTs for weed and dust control. This practice was discontinued when the area was paved after 1983. The ASTs were investigated and closed as part of Fuel Line Site F2B.

Former Petroleum Program Sites 4 and 19 are also within the Site 24 boundary. In December 2003, the Water Board concurred that NFA was required for petroleum contamination at Sites 4 and 19. In addition, former fuel pipelines D1, D2, D4, and F2 traversed portions of Site 24. Fuel leaks associated with the fuel lines have been addressed under the Petroleum Program. A removal action was completed along former fuel line F2 along 5th Street. The Water Board concurred that NFA was required at fuel lines F2A and F2B. A change for Site 24 proposed in March 2005 adjusted the boundary to completely encompass Building 99 and an associated VOC plume (discussed below), as well as to reduce overlap with the F2 fuel line sites and Site 33. The BCT concurred in November 2005.

Several radiological sites are included within the boundary of Site 24: Building 342 and yard area, 343, 343, and Lot 69. Buildings 343 and 344 were previously investigated and received radiological free release from DTSC and the California Department of Public Health (CDPH) in 2008. Building 342 and yard area and Lot 69 are new sites that were identified in the Historical Radiological Assessment Supplemental Technical Memorandum (HRASTM).

### **Building 99 VOC Plume**

Building 99 is located in the northwestern section of Site 24. It was used as a laundry facility from 1942 to 1977 and as a dry cleaning facility for an unknown interval within that period. Waste solvents used during dry cleaning operations were discharged to soil and groundwater beneath the floor of Building 99 from leaks or spills. The volume of solvents that was released to the ground is unknown. Building 99 was later used for meat processing and as a print shop, and most recently as an office and workshop for film sets.

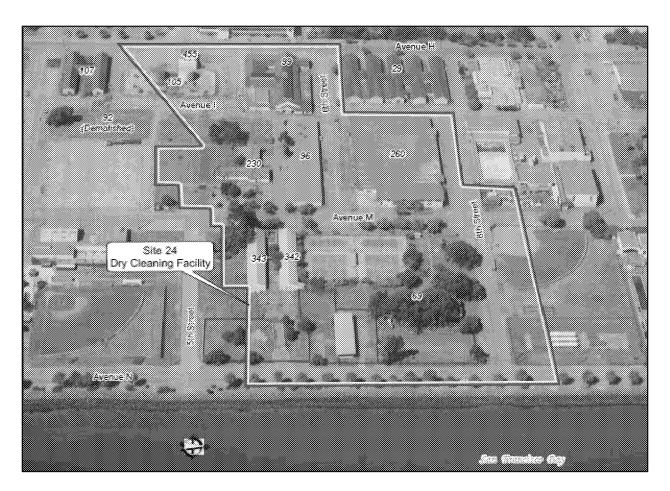
The Navy conducted an investigation from April through July 2003 to delineate the horizontal and vertical extent of a plume of VOCs in groundwater that originates from Building 99 within Site 24. A pilot treatability study was conducted in the source area under Building 99 from May 2003 through March 2004 to evaluate anaerobic in situ bioremediation as a potential remedial option to treat high VOC concentrations at the site. The treatability study was expanded in late 2004 and early 2005 to evaluate the effectiveness of the in situ bioremediation treatment to address low VOC concentrations in the more mobile portions of the plume. The expanded treatability study in the plume area successfully reduced VOC concentrations to below the treatability study cleanup goal of 100 micrograms per liter total VOCs in most areas of the plume. The treatability study was expanded again in 2008 to investigate the potential presence of dense nonaqueous-phase liquids near Building 99 and to test reversal of the injection and extraction pump system to optimize bioorganism circulation and degradation. The treatability study report for Phases I and II was finalized in November 2011, when Phase III began. Phase III was intended to promote the enhanced degradation of chlorinated ethenes in groundwater areas of low and medium concentrations. This enhanced degradation was to reduce or eliminate a continuing source for soil gas contamination, via a vapor intrusion pathway and potentially reduce the need for LUCs. Phase III treatment was completed in December 2012, and the Phase III treatabilty study report was finalized in August 2013.

In 2012, a 3-dimensional visualization and groundwater remedy optimization analysis was conducted and was included as part of the FFS addendum. This analysis resulted in an updated conceptual site model, identification of groundwater data gaps in the lower portions of the shallow plumes, qualitative confirmation of plume reductions, and identification of potential strategies for source area remediation.

#### RI / FFS

The Site 24 Final RI/FFS was submitted on July 3, 2008. Annual groundwater monitoring continues. In December 2013, the Navy expanded the site boundary to encompass the entire VOC plume detected after the Phase I treatability study. However, based on a subsequent request from the Treasure Island Development Authority (TIDA), the Navy proposed to modify the southern boundary of Site 24 in September 2014 to allow for earlier development of adjacent portions of the property by TIDA. The Navy finalized a FFS addendum on October

October 3, 2014 to address source area remediation and radiation issues. The purpose of the FFS addenum was to address the updated conceptual site model, future land use, alternatives not previously considered, and to address radiological concerns under the CERCLA program. The Navy issed a draft PP/Draft RAP on December 19, 2014.



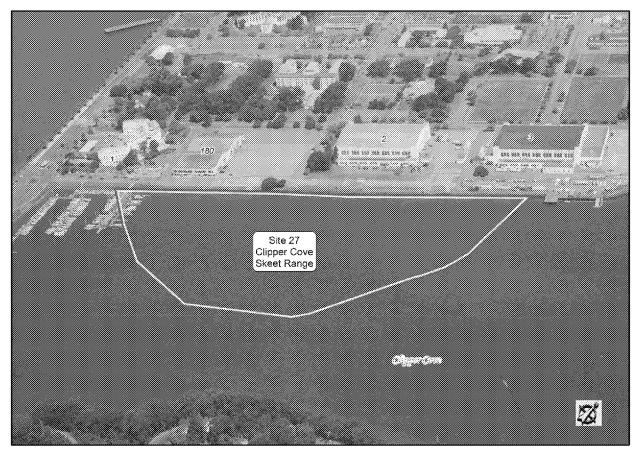
Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

Transfer Category	
Regulatory Classification	Petroleum; CERCLA; UST
Acreage	20.46
Source of Concern	Solvent spills and leaks within Building 99; petroleum, oil, lubricants
Contaminants of Concern	Petroleum, oil, lubricants, chlorinated solvents
Interim Actions	Treatability study for VOC source and plume areas
Current Status	<ul><li>Groundwater monitoring continues.</li><li>Draft PP/Draft RAP issued in December 2014.</li></ul>
USTs/ASTs	<ul> <li>UST 230 closed by the Water Board in 1997.</li> <li>ASTs 103, 104 received NFA concurrence from the Water Board May 9, 2005.</li> <li>ASTs 455A-D (boiler additives) are noted as inactive.</li> </ul>
Estimated Site Closeout	September 2017

#### SITE 27 - CLIPPER COVE SKEET RANGE

Site 27, located in Clipper Cove, is situated directly between TI and YBI. Until 1989, a portion of Clipper Cove was used as a naval skeet range. Naval personnel fired lead shot over the water as clay skeet targets were launched from the shoreline. In 1993, the Clipper Cove Skeet Range was identified as a potential environmental concern, based on Water Board Order No. 93-130, "Site Cleanup Requirements for NAVSTA TI Skeet Range." In October 1993, the BCT agreed to comply with the Water Board Order requirements through the CERCLA process and include the Clipper Cove Skeet Range in the Navy's IR Program as Site 27 (Remedial Project Manager/BCT Meeting Minutes October 1993). In 1996, samples were collected at Site 27 to define the vertical and horizontal extent of lead shot, lead, and PAHs in the offshore sediments and overlying surface water. Additional investigation of lead and PAHs in the onshore soils of Site 27 was conducted under the EBS data gaps investigation in 2004. In September 2005, a hydrographic study was conducted to evaluate sedimentation rates and deposition in Clipper The results indicated steady-state conditions and sediment thickness may not be protective of diving ducks within 150 feet of the shoreline; therefore, an additional sediment investigation to characterize the distribution of lead shot in near-shore sediments was conducted in March 2008. The investigation indicated that lead shot is covered by only 1 foot of sediment in some near-shore locations. A revised FS report was finalized August 13, 2010.

The Navy prepared a site boundary change technical memorandum to exclude the upland portion of the site. No further action in the upland portion, was necessary as PAHs and lead detected in the soil were found to not pose unacceptable risk to human health or the environment. The boundary change was finalized on August 20, 2010. The PP/draft RAP was finalized in June 2011 and a public meeting was held on June 14, 2011. The ROD/RAP was signed and finalized on March 28, 2012, and the selected remedy consisted of focused dredging and backfilling the area within 75 feet of the shoreline, off-site disposal, and ICs to minimize sediment disturbing activity. The remedy removes a potentially complete exposure pathway for diving ducks to access the lead shot in sediment that poses a risk. No CERCLA action was required to protect The RD was finalized on May 22, 2013, and the RAWP was finalized on human health. The remedial action (RA) began in July 2013 and was completed on November 29, 2013. Site 27 was also included in the first basewide 5-year review that was finalized on December 15, 2014. A RACR is being finalized. An addendum to the LUC RD to detail the specific controls required for the site (the 2013 RD provided only general information) was issued as a draft document in November 2014.



Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

Transfer Category	
Regulatory Classification	CERCLA
Acreage	18.77
Source of Concern	Skeet range
Contaminants of Concern	Lead shot
Interim Actions	None
Current Status	<ul> <li>Remedial action was completed November 29, 2013.</li> <li>RACR was finalized on December 12, 2014.</li> <li>A LUC RD addendum is being prepared.</li> </ul>
	<ul> <li>Site 27 was included in the first basewide 5-year review in December 2014.</li> </ul>
USTs/ASTs	None
Estimated Site Closeout	Not applicable, site ICs and 5-year review process will continue

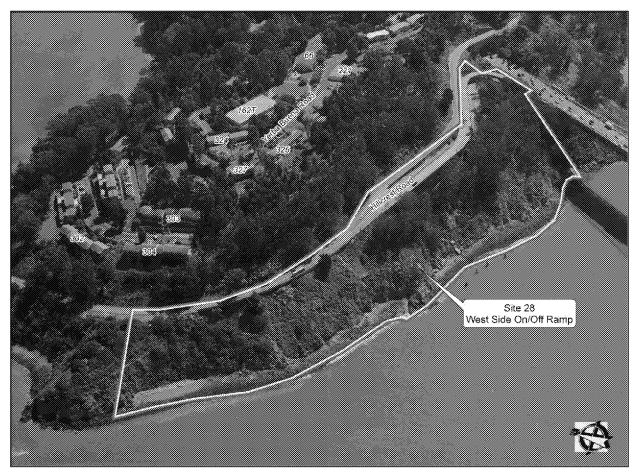
#### SITE 28 - WEST SIDE ON/OFF RAMPS

Site 28 is located in the western portion of YBI and is bounded to the east by Treasure Island Road, to the south by Site 29, and to the west by the Bay. The Navy owned the property comprising the area beneath the bridge until 2001, when the FHWA transferred the bridge right-of-way from the Navy to Caltrans. A CERCLA site boundary change in June 2005 transferred the southernmost portion of Site 28 to Site 29 so that the remaining area of Site 28 would continue as Navy property, and most of Site 29 would be Caltrans property. Apart from the roads running through Site 28, most of the site is steeply sloped to the southwest toward the Bay and densely vegetated with trees and brush.

The Bay Bridge connects San Francisco with Oakland and other East Bay cities and crosses NAVSTA TI through a tunnel on YBI. Treasure Island Road has been in operation since the Bay Bridge was constructed in 1936.

Site 28 was not included in the IR Program until after the 1992 draft Phase I RI reporting period. An initial soil investigation was conducted in 1993 by Blaine Technical Services, Inc., a subcontractor to Seaworkers, Inc. The investigation was conducted in connection with health and safety concerns for workers performing seismic improvements to the on/off ramps in areas possibly containing elevated concentrations of metals in airborne dust. Additional investigations performed as part of the primary Phase IIB RI were reported in the draft 1997 RI report. In December 2001, the Navy completed a validation study to confirm results of the SLERA included in the 1997 RI report for the peregrine falcon. The study concluded that no unacceptable risk was posed to the falcon at Sites 8, 11, 28, and 29. The surface soil on the site may be contaminated by lead and other metals as a result of vehicle emissions, as well as bridge and ramp painting and maintenance.

The Navy finalized the RI report with recommendations for NFA. An NFA PP and public comment period were completed by April 29, 2010. An NFA ROD was signed on November 22, 2010. Although Site 28 has a NFA ROD and no LUCs will be included as part of the CERCLA remedy, use of the property will be restricted because it has been included in the Tidelands Trust. The Tidelands Trust is overseen by the California State Lands Commission. The Treasure Island Tidelands Trust Exchange Act of 2004 proposed an exchange of lands under which non-Trust lands on YBI would be brought into the Trust, and Trust lands on TI would be released from the Trust. Upon inclusion in the Tidelands Trust, Site 28 lands would be limited to uses that attract people to the waterfront, promote public recreation, protect habitat, and/or preserve open space.



Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

Transfer Category	YBI FOST 3
Regulatory Classification	CERCLA
Acreage	10.53
Source of Concern	LBP from the Bay Bridge
Contaminants of Concern	Lead
Interim Actions	None
Current Status	NFA ROD was signed November 22, 2010.
USTs/ASTs	None
Estimated Site Closeout	January 2016 (one year post-transfer allocated for tidelands trust exchange)

#### SITE 29 - EAST SIDE ON/OFF RAMPS

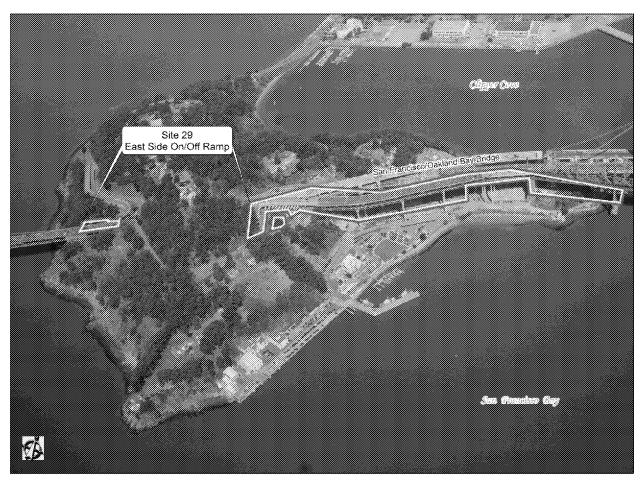
Site 29 is located below and parallel to the Bay Bridge from the northeastern portion of YBI westward to the YBI tunnel, with a portion of the site on the western side of the YBI tunnel. The western and central portions of the site are mostly covered by pavement or concrete associated with the bridge and the on- and off-ramps. The Navy owned the property comprising the area beneath the bridge until 2001, when the FHWA transferred the bridge right-of-way from the Navy to Caltrans. The Bay Bridge and west side on/off ramps border the southern portion of Site 28 and were included in Site 29 based on the boundary change made in June 2005. The boundary change did not add to or delete acreage from the total of Site 28 and Site 29, but only transferred a portion of Site 28 to Site 29. The remainder of the site, on the east side of the YBI tunnel, is steeply sloped to the southwest and vegetated with trees and brush. The YBI on/off ramps have been in operation since the Bay Bridge was constructed in 1936. The Bay Bridge connects San Francisco with Oakland and other East Bay cities and crosses NAVSTA TI through a tunnel on YBI. The surface soil on the site may be contaminated by lead and other metals from vehicle emissions, as well as bridge and ramp painting and maintenance.

Site 29 was not included in the IR Program until after the 1992 draft Phase I RI reporting period. While Site 29 was not investigated during the Phase I RI, samples for the Site 11 RI (adjacent to Site 29) were collected within the Site 29 boundary. Additional investigations performed as part of the primary Phase IIB RI were reported in the draft 1997 RI report. In December 2001, the Navy completed a validation study to confirm results of the SLERA included in the 1997 RI report for the peregrine falcon. The study concluded that no unacceptable risk was posed to the falcon at Sites 8, 11, 28, and 29.

Petroleum Program investigations have overlapped with the Site 29 boundaries. The former fuel pipelines YF3 and USCG were investigated in 1997, and additional borings were drilled in 2000 and 2001 for further delineation of the extent of contamination along the former fuel pipelines. The Water Board has requested the Navy to perform additional investigation along this section of the pipeline. Removed UST 270, formerly within the Site 29 boundaries, was investigated from 1995 to 1997. The Navy received an NFA closure letter from the Water Board for UST 270 in 2004.

An SI was performed by Caltrans in 2001 to chemically characterize soil and groundwater for potential contaminants that may be encountered during construction. In 2002, additional lead investigations were conducted to (1) fully delineate the extent and magnitude of lead in surface soils at Sites 8, 11, and 29; (2) collect additional soils data for comparison to the validation study results; and (3) provide additional data, if needed, for the HHRA presented in the 1997 RI report for Sites 8, 11, and 29. Field inspections of Site 29 were performed in April and October 2006 to verify removal of contaminated soil by Caltrans and to document ongoing construction activities.

The Navy finalized the interim RI report for Sites 8 and 29 in March 2009. The Navy will discuss resuming work on the site with Caltrans following demolition of the old eastern span, completion of the freeway access ramps, and demobilization from staging/laydown areas. The schedule in Appendix B is based on Caltrans' quarterly schedule. After bridge activities are complete, an RI addendum will need to be prepared for the site. In December 2010, the Navy finalized a site boundary change technical memorandum to exclude the Bay Bridge on/off-ramp in support of property transfer. In December 2011, the Navy finalized another site boundary change technical memorandum to exclude the three "artifacts" from Site 29 in support of property transfer because no unacceptable risk to human health or the environment has been found in these three areas.



Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

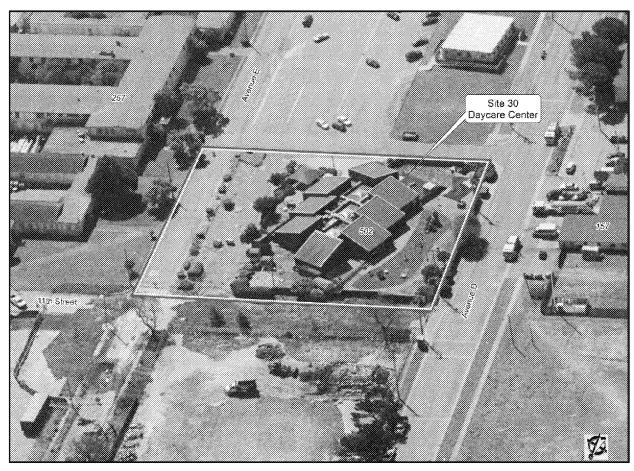
Transfer Category	On Caltrans-owned property. On Caltrans temporary construction easement property.
Regulatory Classification	CERCLA, UST
Acreage	15.13
Source of Concern	LBP from the Bay Bridge, fuel line
Contaminants of Concern	Lead and SVOCs
Interim Actions	None
Current Status	<ul> <li>Interim RI report (for Sites 8 and 29) was submitted in March 2009.</li> <li>Navy will discuss site closeout with Caltrans after bridge activities are complete.</li> </ul>
USTs/ASTs	UST Quarters 8: removed, received NFA concurrence from the Water Board October 3, 1997.
	<ul> <li>UST 213, previously suspected, never existed: received NFA concurrence from the Water Board December 2, 2003.</li> </ul>
	<ul> <li>UST 270: received case closure letter from the Water Board February 10, 2004.</li> </ul>
Estimated Site Closeout	January 2020

### SITE 30 - DAYCARE CENTER

Site 30, Daycare Center (Building 502), is located south of the Treasure Island Elementary School, at the corner of Avenue D and 11th Street. The site was undeveloped until the Navy's former daycare center was built in 1985. After NAVSTA TI closed, the Treasure Island Daycare Center was leased to the City of San Francisco under a finding of suitability to lease (FOSL) on July 29, 1997. The current daycare center opened on March 17, 2003.

As part of the EBS to support the leasing of the daycare center, the Navy reviewed a 1989 as-built drawing of the water lines in the area; the drawing noted the comment "buried trash" along 11th Street. In 2002, a series of investigations identified various types of wastes, including buried burned debris associated with historical practices, that contained lead at concentrations that exceeded the site soil screening level. Based on these findings, in July 2002 the Navy completed a time-critical removal action. Additional burned debris was found, and analytical results for soil samples showed the presence of dioxins, lead, arsenic, and vanadium. The Navy continued to investigate in an effort to delineate the extent of the burned debris and dioxin contamination. Some of the soil containing burned debris was not accessible because of the adjacent location of the daycare center (Building 502) and could not be removed. The site was designated as a CERCLA site in September 2002. In January 2003, the Navy installed a 6-inch concrete pad adjacent to the daycare center to cover the 1,400-square-foot area around and between the locations that contain elevated concentrations of dioxin in the subsurface soil. The concrete pad with asphalt cover serves as a protective barrier to prevent contact with the soil. The Site 30 boundary adjacent to Site 31 was modified in February 2005 to exclude the sidewalks on the south side of 11th Street.

A groundwater investigation was conducted in May 2004. Samples were analyzed for VOCs, SVOCs, metals, TPH, pesticides, PCBs, and dioxins. No chemicals were detected above TI groundwater screening values. The RI report was finalized in February 2006. The FS was finalized in November 2006. The PP was finalized September 18, 2008, and the public meeting was held on October 7, 2008. The ROD was finalized August 5, 2009. The selected remedy was engineering controls and ICs to address the principal threats by preventing exposure to potentially contaminated soils beneath the building and allow the site to be used currently and in the future as a daycare center. The LUC RD/RAWP was finalized on November 24, 2010. Annual LUC inspections and reporting are ongoing and have observed that no violations to the LUCs have occured. Site 30 was also included in the first basewide 5-year review that was finalized on December 15, 2014. During development of the the HRASTM, Site 30 was identified as located within the footprint of former storage areas that extended to the north and south of the site (see Figure 10). Based on the results of the final HRASTM and the proximity of Site 30 within a former storage yard, a radiological survey will be conducted at Site 30 in 2015.



Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

Transfer Category	
Regulatory Classification	CERCLA
Acreage	1.46
Source of Concern	Bum debris disposal area
Contaminants of Concern	Dioxins and metals
Interim Actions	Time-critical removal actions in July 2002 and agency-approved concrete cap installed January 2003.
Current Status	<ul> <li>Annual LUC inspections and reporting are ongoing.</li> <li>Radiological survey work plan is being prepared.</li> <li>Site 30 was included in the first basewide 5-year review in December 2014.</li> </ul>
USTs/ASTs	None
Estimated Site Closeout	October 2015

### SITE 31 - FORMER SOUTH STORAGE YARD

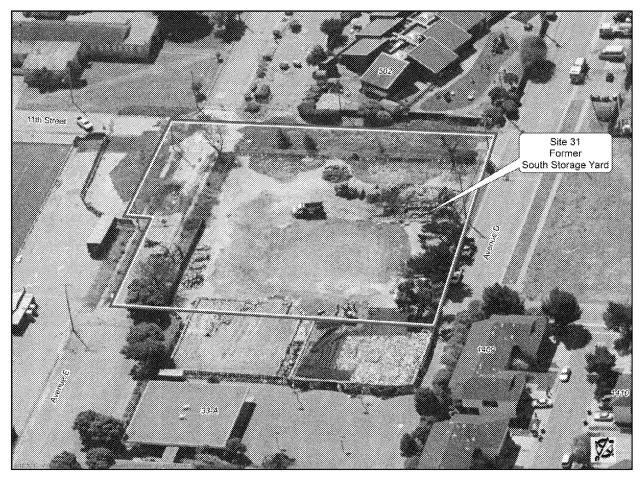
Site 31, the asphalt-covered playground south of the Treasure Island Elementary School, referred to as the Former South Storage Yard, is located at the corner of Avenue E and 13th Street. According to historical aerial photographs, Site 31 was used during the 1970s as a storage yard; however, the nature of and operations at the storage yard are unknown. In the late 1970s, the area was paved over and developed as a playground for the elementary school. Based on the FOSL and the restrictions it identified, the Navy entered into a lease agreement with the San Francisco Unified School District (SFUSD) on May 13, 1996 for the elementary school and associated playground. The school had originally been constructed by SFUSD around 1968 when the military housing was built and was operated under a previous agreement with the Navy until the 1996 lease agreement.

In 2002, the Navy investigated the area based on its former use as a storage yard and because of the reference to an "old trash dump" noted on a 1989 as-built drawing for the 11th Street water line replacement project. An initial investigation identified the presence of construction and burned debris. The initial investigation also identified concentrations of lead, PCBs, and DDT in soil that were elevated above the site screening levels. These chemicals may have been associated with fuel leaks or other releases from the machinery, electrical equipment, and paint that were stored in the former storage yard area. The site was designated as a CERCLA site in September 2003.

An additional soil investigation in 2003 identified concentrations of TPH as diesel and motor oil, PAHs, and dioxins at the site. The concrete pad overlain by asphalt currently serves as a protective barrier to prevent contact with the soil beneath the playground. A groundwater investigation was conducted in May 2004. Samples were analyzed for VOCs, SVOCs, metals, TPH, pesticides, PCBs, and dioxins. None of these chemicals was detected above TI groundwater screening values. The Site 31 boundary, which is adjacent to Site 30, was modified in April 2005 to include the sidewalks on the south side of 11th Street.

The RI report was finalized in July 2006. The FS report was finalized in March 2007. The PP was finalized September 18, 2008, and the public meeting was held on October 7, 2008. The ROD was finalized on August 5, 2009. A final soil remediation work plan was submitted January 28, 2010. The soil remediation field work (referred to as Phase I) began in February 2010 and continued through July 2010. During the field work, radium-226 was also detected at the site.

The Navy finalized a RAWP on January 27, 2012, for additional excavation and radiological characterization of soil (referred to as Phase II) at Site 31. The Navy has completed the Phase II soil removal action for Site 31 and included radiological characterization because of the site's proximity to Site 12, site history, and presence of debris at the site. The Navy has backfilled the excavations, conducted a gamma walkover survey, and is currently preparing a RACR and FSS for Site 31.



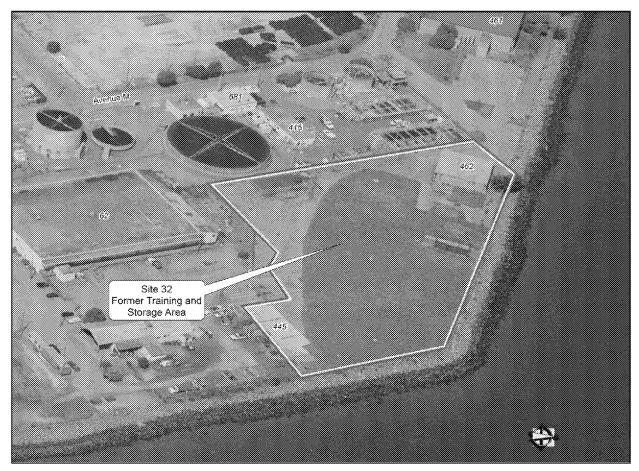
Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

Transfer Category	
Regulatory Classification	CERCLA
Acreage	2.02
Source of Concern	Storage yard, burn debris disposal
Contaminants of Concern	Lead, dioxins, PAHs, TPH, and radium-226
Interim Actions	None
Current Status	Phase II soil remediation is complete and an FSS report and RACR are being prepared.
USTs/ASTs	None
Estimated Site Closeout	May 2015

### SITE 32 - FORMER TRAINING AND STORAGE AREA

Site 32, the Former Training and Storage Area, consists of portions of EBS Parcels T111 and T115, is east of the WWTP on Avenue M and includes Building 462 and area of former Building 463. The area has been used as a parking lot for vehicles and forklifts, a storage area for hazardous materials and hazardous wastes, a tear gas training area, and as storage for former training facilities. A concrete pad, located north of Building 463, formerly held an electrical transformer. Historically, the site was also used for radiological decontamination training. The Damage Control School was relocated from the northwestern area (Site 2) to the northeastern area of the base in March of 1970. The new training complex consisted of Buildings 461, 462, 463, and the exercise area containing the USS *Pandemonium* mockup. Training at the complex is discussed in more detail in the "Final Treasure Island Naval Station Historical Radiological Assessment [HRA]" by Weston Solutions, Inc., published in February 2006. evaluated past operations in the vicinity and concluded that radiological issues were not a concern at Site 32. Building 445 is located within Parcel T115 and was historically used for forklift maintenance, boat motor storage, general shop activities, and administrative offices. The Site 32 area was designated for investigation because fluid that contained PCBs was known to have been released from the former transformer and to assess the possibility of contamination associated with historical site usage.

Initial investigations, under the EBS data gaps study, were conducted at the site in April 2003. Additional investigations were conducted between September and November 2003. Soil and groundwater samples were collected. Soil samples from the initial investigation contained concentrations of PCBs, TPH as diesel and motor oil, dioxins, and pesticides. There were no detections in groundwater above screening criteria. The site was designated as a CERCLA site on April 6, 2004. The CERCLA boundary between Sites 6 and 32 was adjusted in June 2005 to move a small portion of EBS Parcel T111 from Site 32 into Site 6 based on dioxin data that had been collected in that parcel. Additional trenching was performed at Site 32 in October 2005 to investigate the nature and extent of dioxins in shallow soils. An RI report was finalized on October 30, 2008. A Toxic Substances Control Act (TSCA) PCB remediation, which was an interim removal action that also addressed arsenic, was completed at Site 32 in March 2010. A year of post-removal action groundwater monitoring was completed in February 2012, and a groundwater monitoring summary report was finalized in July 2012. All concentrations of contaminants of concern (COC) were either non-detected or were detected at low levels during all four quarterly sampling events. There is no indication of residual petroleum contamination in groundwater. No further actions were recommended for groundwater at Site 32 as a result. A post-construction summary report (PCSR) was finalized in July 2011. The Navy was not required to prepare an FS under CERCLA because the TSCA cleanup action removed all soil containing PCBs above the cleanup level of 1 milligram per kilogram and also removed all other constituents that exceeded NAVSTA TI cleanup goals. No additional cleanup action is necessary for Site 32 because there is no longer an unacceptable risk to human health or the environment. Both the PP/Draft RAP were finalized September 16, 2011, and a public meeting was held on September 28, 2011. A ROD/Final RAP is on hold pending the results of a radiological survey of the former USS Pandemonium mockup location, which is being reevaluated based on a review of existing data after the 2006 HRA was completed (see page A-56, summary of Radiological Program under Compliance and Basewide Program section). The draft ROD/final RAP is planned to be issued in 2015.



Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

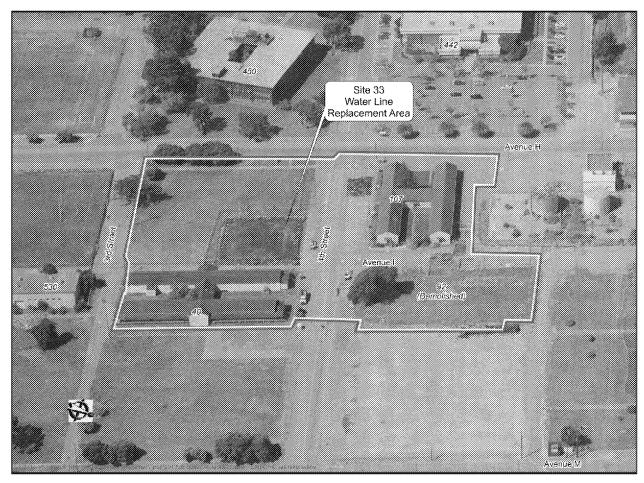
Transfer Category	
Regulatory Classification	CERCLA
Acreage	2.60
Source of Concern	Transformer, storage area
Contaminants of Concern	PCBs, TPH, dioxins, pesticides, arsenic
Interim Actions	TSCA soil removal in 2010.
Current Status	<ul> <li>Radiological scanning of Site 32 was completed in 2014.</li> <li>Draft ROD to be prepared in 2015.</li> </ul>
USTs/ASTs	None
Estimated Site Closeout	November 2015

### SITE 33 - WATER LINE REPLACEMENT AREA

Site 33, the Water Line Replacement Area, is located south of Site 24. The area was identified on historical as-built drawings, which showed locations where crews observed debris in the trench for the water line during extensive repairs in the 1980s. In addition, areas of debris were identified near Building 530 (Parcel T015) during removal of a petroleum pipeline. Most of the areas of debris are within the footprint of the former Lake of the Nations, constructed for the Golden Gate International Exposition of 1939 and 1940.

Initial investigations, under the EBS data gaps study, were conducted at the site in April 2003 and between September and November 2003. Soil and groundwater samples were collected. Soil samples contained concentrations of dioxins and metals. The site was designated as a CERCLA site on April 6, 2004. An additional groundwater investigation was conducted in summer 2005. Groundwater samples contained concentrations of copper, lead, mercury, nickel, silver, and zinc. The RI report was finalized on April 30, 2010. An Explanation of Significant Differences (ESD) was finalized on May 24, 2011, to complete the RA for Site 33 under the Site 31 ROD.

The Navy finalized a RAWP on January 27, 2012, for excavation and potential radiological characterization of soil at Site 33. The Navy completed the soil remediation for Site 33 and backfilled the site in May 2014. Radium-226 screening was conducted during the removal action because of the presence of debris at the site and because the 2006 HRA stated that the Navy would evaluate the site further. The Navy finalizied the RACR for Site 33 in October 2014. The regulatory agencies concurred with the report with signatures in the final RACR on October 29, 2014.



Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

Transfer Category	FOST 4
Regulatory Classification	CERCLA
Acreage	4.89
Source of Concern	Debris disposal area
Contaminants of Concern	Arsenic and lead
Interim Actions	None
Current Status	The RACR was finalized in October 2014; regulatory agencies concurred with signatures in the RACR on October 29, 2014.
USTs/ASTs	None
Site Closeout	Closed



# SITE 4/19 - HYDRAULIC TRAINING SCHOOL/REFUSE TRANSFER AREA

Site 4 is located approximately 200 feet north of 5th Street, between Avenues M and N. Sites 4 and 19 are generally referred to as Site 4/19. Site 4 is known as the Hydraulic Training School and includes a paved, fenced area that formerly contained about 15 55-gallon drums of waste oil (mainly transmission oil). Waste oil released from drums stored at the site is the primary potential contaminant. Waste oil leaks or spills stained the underlying concrete pavement and an adjacent earthen area. Several hundred square feet of surface area has been affected. The site also includes an eastern lot, referred to as the investigation-derived waste storage area.

Site 19, located just south of Site 4, is known as the Refuse Transfer Area. The site was used to hold and transfer refuse beginning in 1953; it is unknown when operations ceased. Little information exists regarding disposal practices before 1970. Previous environmental assessments have found small, isolated areas of oil, grease and petroleum hydrocarbons in surface soils.

The closure report requesting NFA was submitted on December 15, 2003, and Water Board concurrence was received. An additional investigation of PAHs in soils was conducted under the EBS data gaps investigation with Parcels T066/T117 in 2004 at the request of the BCT. Based on the analytical results, the Navy recommended no further investigation in the May 2005 field activity report.

Transfer Category	FOST 4
Regulatory Classification	Petroleum Program
Acreage	1.72
Source of Concern	Storage area; spill area; maintenance yard; transfer facility
Contaminants of Concern	Petroleum, oil, lubricants
Interim Actions	None
Current Status	NFA concurrence received from the Water Board on December 17, 2003.
USTs/ASTs	None
Site Closeout	Closed

# SITE 6 - FIRE TRAINING SCHOOL

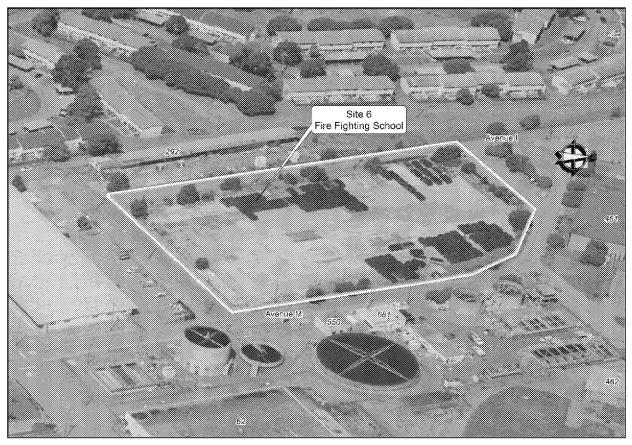
Site 6, the former Navy firefighting training school, was used for nearly 50 years (1944 to 1992) for various firefighting training activities. The training school formerly included 23 buildings, six USTs, and a central training yard, which consisted of burn areas lined with asphalt and concrete. Fires fueled with diesel and gasoline, magnesium, and wood were set in various mockups in the training yard and were extinguished with a mixture of water, biodegradable soap, and industrial talc. Approximately 19,000 gallons of gasoline and 32,000 gallons of diesel fuels were used each year for the firefighting training. Wastewater and unburned gasoline and diesel were collected in a concrete collector trench (installed in about 1949) situated around the perimeter of the training school yard. Wastewater and unburned gasoline and diesel collected in the trench passed through on-site OWSs. No historical information has been discovered that discusses disposal of wastes before the perimeter concrete collector trench and the on-site OWSs were constructed. Wastewater generated and treated at the site was discharged to the NAVSTA TI WWTP, constructed in 1968, and waste diesel and gasoline fuels were disposed of at an off-base location. Before 1973, the wastewater that flowed to the concrete collector trench was discharged to the Bay without treatment. Approximately 14,000 gallons of petroleum residue was generated per year at the training school.

All buildings have been removed from the site. Four 1,500-gallon USTs (240A, 240B, 248A, and 248B) that contained gasoline and diesel for firefighting training were present within the northern and eastern portions of the training yard. USTs 240A and 240B were removed in 1992, and USTs 248A and 248B were removed in 1995. Two 1,000-gallon USTs (248C and 248D), previously used to store waste fuel, were removed in 2002. One known AST (248), located near UST 248D, was removed prior to 1995. UST M, a previously suspected UST for coolant, was reported in Shaw's "Final Facilitywide Underground Storage Tank Summary Report Update," dated August 25, 2004, as never having been installed, based on document reviews and discussions with Navy personnel. Petroleum remedial activities were conducted at Site 6 between May and December 2002. Remedial activities included excavation of USTs and excavation of petroleum-contaminated soils near the USTs, pipelines, and OWS components throughout the site. Remediation also included evaluation and excavation of free product near USTs 240A and 240B. In October 2002, during remedial excavation at the UST 248 area, burn surfaces were identified near the former Building 464 foundation. Shallow soil samples collected in this area contained dioxins and furans at concentrations above the soil screening levels. The excavation was subsequently expanded to include removal of burn debris and soot-discolored areas. Results from confirmation samples found dioxins and furans above the screening levels, causing Site 6 to be transferred to the CERCLA Program on September 18, 2003.

Further investigation and delineation of dioxins and furans detected in soil were conducted under the CERCLA Program as part of the EBS data gaps investigation in 2003. Based on the results of the investigation, the BCT agreed to a boundary revision for the CERCLA site at the June 7, 2005, BCT meeting. The boundary revision included a portion of Parcel T112 east and north of the WWTP area, where dioxins were detected in shallow soil samples. On January 24, 2007, a second boundary revision was submitted separating Site 6 (CERCLA Program) and Site 6A (Petroleum Program). DTSC did not concur with the request to modify the boundary. Other investigations include a soil gas sampling program completed in October 2004 to evaluate VOCs in soil gas near former USTs 240A and 240B. Groundwater at Site 6 continues to be monitored semi-annually under the Basewide Petroleum Sites Groundwater Monitoring Program.

Between 2007 and 2008, Site 6 was used as a temporary excavated soil staging and loading area, including the RCA for the Site 12 NTCRA. Before it was used for staging and loading, a baseline radiological survey was conducted. While staging and loading were ongoing, engineering controls were developed, air monitoring equipment was installed, and a surveillance program for health and safety was in place. In addition to engineering controls, best management practices, such as keeping soil stockpiles covered to prevent releases, were used. The soil staging and loading area included temporary stockpiling and loading of soil into bins, at which point they were characterized and shipped off site to a licensed disposal facility. The waste shipped off site included both chemical and low-level radiologically impacted soil (radium-226). Since 2008, soils have not been stockpiled at Site 6. However, LLRW that has been characterized and placed in sealed bins was temporarily stored in the Site 6 RCA while awaiting off-site disposal. In 2014, all remaining LLRW bins awaiting off-site disposal were relocated to a paved area north of Building 461, adjacent to Site 6. The Navy is currently conducting a MARSSIM FSS for Site 6, which was designed to achieve free release for radiological issues.

In 2010, the Navy completed a CERCLA data gaps investigation to further evaluate the nature and extent of chemicals in soil, soil gas, and groundwater. The Navy finalized the combined RI/FS in October 2012. To address the concerns expressed by the Water Board, the Navy completed a petroleum corrective action near the 240 series USTs in March 2013. The Navy prepared a PCSR for the UST 240 removal action and will be requesting regulatory closure for USTs 240A, 240B, 248A, 248B, 248C, and 248D in 2016.



Aerial photographs taken by American Aerial Surveys Inc. on May 10, 2012.

Transfer Category	
Regulatory Classification	Petroleum; CERCLA
Acreage	3.45
Sources of Concern	USTs, firefighting training area, OWSs
Contaminants of Concern	Petroleum (CERCLA contaminants include:dioxins and furans, VOCs, PAH)
Interim Actions	<ul> <li>USTs removed in 1992, 1995, and 2002.</li> <li>Floating product removal action completed in 2002.</li> </ul>
Current Status	<ul> <li>Annual groundwater monitoring continues.</li> <li>Removal action of USTs (240 series) is completed.</li> </ul>
USTs/ASTs	AST 240, 248 and USTs 240A, 240B, 248A, 248B, 248C, and 248D all are removed; NFA concurrence will be requested in 2016 following additional groundwater monitoring.      Previously suspected UST M received concurrence on NFA.
	<ul> <li>Previously suspected UST M received concurrence on NFA December 2, 2003.</li> </ul>
Estimated Site Closeout	November 2016

### SITE 14/22 - NEW FUEL FARM/NAVY EXCHANGE SERVICE STATION

Site 14/22 represents the combination of two adjacent petroleum sites located in the northeast portion of TI. Site 14 (New Fuel Farm) was established in 1943 as the primary fuel storage and distribution center at NAVSTA TI. Shortly thereafter (in approximately 1946), the Navy centralized the distribution of automotive fuel with the construction of the Naval Exchange Service Station (referred to as Site 22). It served as a fuel storage area and gas station for more than 50 years. Fuel storage and dispensing at Site 14/22 released diesel, waste oil, and gasoline into the environment. Based on available information about the site history and operations, the suspected sources of gasoline, diesel, and petroleum contamination at Site 14/22 include the tanks and associated piping, a gasoline pumphouse (Building 85), and the service station (Building 330). A full-scale treatment system including air sparging and soil vapor extraction, installed in the area of the former USTs, has been dismantled. The system operated for 3 years and was effective in removing TPH. A soil cleanup action, including large-scale soil excavation, was completed at Site 14/22 in 2004. The site received NFA concurrence from the Water Board in July 2005.

Transfer Category	FOST 4
Regulatory Classification	Petroleum; UST
Acreage	2.18
Source of Concern	ASTs and USTs; petroleum pipelines; vehicle maintenance
Contaminants of Concern	Petroleum, oil, lubricants, VOCs
Interim Actions	UST/AST removals completed, 1997 pipeline removal action completed, in situ groundwater treatment system completed, large-scale shallow soil excavation completed in 2004.
Current Status	NFA concurrence received from Water Board on July 18, 2005.
USTs/ASTs	<ul> <li>USTs 85, 330A through 330F removed.</li> <li>USTs 85, 330A, 330B, 330E, and 330F removed, received NFA concurrence July 18, 2005.</li> <li>USTs 330C and 330D received closure July 22, 1996.</li> <li>ASTs 4, 5, and 456 removed.</li> <li>ASTs 6A through 6G removed.</li> <li>AST 672 removed.</li> </ul>
Site Closeout	Closed

#### SITE 15 - OLD FUEL FARM

Site 15 is located on the southeastern shore of TI at the intersection of Avenues M, N, and California Avenue. The site was the original fuel storage and distribution facility for NAVSTA TI, which consisted of two large-capacity ASTs (4M and 5M), four smaller-capacity ASTs (collectively identified as AST 6M), a gasoline pump house (Building 84), a diesel pump house (Building 86), and a diesel oil clarifier (Building 85). In 1943, ASTs 4M, 5M, and 6M were relocated to the New Fuel Farm (Site 14). In 1945, Building 85 was moved to the New Fuel Farm, and Building 86 was demolished; Building 84 was demolished in 1961. Two smaller former diesel ASTs (ASTs 34A and 34B) were located near Building 34. Former fuel AST 34A was located on concrete mounts east of Building 34, and former fuel AST 34B was apparently located on a concrete pad next to an emergency generator southeast of Building 34. Investigations at Building 34 in 1985 revealed soil suspected of containing oil or petroleum hydrocarbons. No impact to groundwater has been identified in the area of Building 34.

Fuel lines, where found, were removed during remedial activities in 1997 and 1998. Preliminary remediation wells were installed in 2001 to assess TPH contamination in the eastern subarea, along fuel line D1, and approximately 400 feet west and downgradient of Building 34 within Site 15. The remediation wells were not effective at recovering free product because of the nature of TPH contamination at Site 15. The Navy excavated several areas of PAH-contaminated shallow soil in 2002 and continued monitoring groundwater at the site from 2001 until 2004. In September 2004, the site received concurrence from the Water Board that NFA was required.

Transfer Category	2006 TI FOST (FOST 1), Upcoming FOST
Regulatory Classification	Petroleum
Acreage	4.87
Source of Concern	ASTs; petroleum/pipelines
Contaminants of Concern	Petroleum, oil, lubricants
Interim Actions	Tank removals completed and excavation of petroleum contamination completed.
Current Status	NFA concurrence received from Water Board in September 2004.
USTs/ASTs	ASTs 4M, 5M, 6M, 34A, 34B; removed
Site Closeout	Closed

#### SITE 16 - CLIPPER COVE TANK FARM

Site 16, the Clipper Cove Tank Farm, is located on the eastern side of the isthmus that joins YBI and TI, adjacent to the causeway. Ten 17,000-gallon ASTs, reported to have stored aviation gasoline and automotive diesel fuel at Site 16, were in use from at least 1943 until they were dismantled in the 1960s. Sludge was removed from the ASTs when they were dismantled, with unknown quantities of sludge reportedly deposited on bare ground east of the former AST locations. No documentation of removal and disposal of the sludge during the 1960s has been found. Based on the investigation at the site, it appears that at least some portion of the sludge was left on the surface to degrade and leach into the underlying soils. In 2001, contaminated surface soil was excavated by the Navy and disposed of off site. The area has a picnic table and is currently unpaved and covered with shrubs and trees. The Navy requested NFA for the site in April 2004 and received NFA concurrence from the Water Board on June 17, 2004.

Transfer Category	2006 YBI FOST (FOST 2)
Regulatory Classification	Petroleum
Acreage	1.22
Source of Concern	ASTs
Contaminants of Concern	Petroleum, oil, lubricants
Interim Actions	Tank removal action completed; soil excavation completed.
Current Status	NFA concurrence received from Water Board on June 17, 2004.
USTs/ASTs	10 ASTs removed
Site Closeout	Closed

# SITE 20 - AUTO HOBBY SHOP/TRANSPORTATION CENTER

Site 20, the Auto Hobby Shop and Transportation Center, is located on the northwestern side of TI. Site 20 is fully encircled by Site 12. The area was used as the NAVSTA TI transportation center from 1943 to 1950. The transportation center included the transportation building (Building 194), garage and repair shop (Building 284), and storage or barracks (Building 225 and 267). In approximately 1961, Building 225 was converted to an Auto Hobby Shop, the garage portion of Building 224 was demolished, and the filling station became Building 370 (east of Building 225) until it was demolished in 1976. Four known USTs (225A through 225D) were located at Site 20, east of Building 225 at the site of the former service station; all four were removed in 1988. Approximately 2,200 cubic yards of soil surrounding the former USTs was excavated in 1990 and was aerated adjacent to the excavation. The Navy later disposed of the aerated soils at an off-site, permitted landfill. In 2001, soil was removed near the former USTs and in two areas of surface contamination. The Navy received Water Board concurrence on NFA for the USTs at Site 20 on May 5, 2004, and received overall site closure on June 17, 2004.

Transfer Category	
Regulatory Classification	Petroleum; UST
Acreage	1.63
Source of Concern	Maintenance yard; USTs
Contaminants of Concern	Petroleum, oils, lubricants, VOCs
Interim Actions	UST corrective action completed; soil excavation completed.
Current Status	NFA concurrence letter received for USTs 225A through 225D; overall site closure letter received on June 17, 2004.
USTs/ASTs	USTs 225A through 225D removed
Site Closeout	Closed

#### SITE 25 - SEAPLANE MAINTENANCE AREA

Site 25 was previously used for vehicle and seaplane maintenance. Based on available information about the history and operations at the site, the suspected sources of gasoline, diesel, and petroleum contamination at Site 25 are (1) the suspected USTs, (2) the former fuel pump house (Building 143), (3) the former airplane and vehicle maintenance, (4) the causeway pipeline (between Sites 16 and 25), and (5) the former auxiliary boiler (Building 520) and associated AST. The seaplane maintenance area consists of a total of 11 buildings that were used for or associated with storing and maintaining seaplanes. Pipelines between Sites 16 and 25 have been removed. An in situ groundwater treatment system, including soil vapor extraction and air sparging, operated at the site until April 28, 2005.

The Navy submitted the "Final Site 25 Closure Report and Request for No Further Action" on December 7, 2005. After correspondence with the Water Board, a final letter from the Water Board dated August 29, 2006, did not concur with closure and the NFA request for the site. As a result, additional groundwater monitoring was conducted at the site through 2008. In early 2009, soil samples were collected to confirm post-treatment concentrations of TPH. Results of the groundwater and soil samples were presented in the "Final Addendum to the Closure Report Site 25, submitted January 29, 2010. This report requested NFA concurrence and closure of the suspected USTs 2B and 143A through 143I. At the request of the Water Board, the Navy conducted a targeted soil gas investigation in late 2010 and early 2011. The Navy submitted a technical memorandum with the results of the soil gas investigation and vapor intrusion pathway evaluation and request for site closure on March 7, 2011. The Water Board provided concurrence on the Navy's recommendation for NFA at the site in a letter dated October 28, 2011.

Transfer Category	2006 TI and YBI FOSTs (FOSTs 1 and 2), portion on FOST 4
Regulatory Classification	Petroleum; UST
Acreage	3.26
Source of Concern	USTs; petroleum pipelines
Contaminants of Concern	Petroleum, oil, lubricants
Interim Actions	Groundwater monitoring
Current Status	NFA concurrence received from Water Board on October 28, 2011.
USTs/ASTs	USTs 2B, 145, 143A through 143I suspected
Site Closeout	Closed

#### SITE 26 - UST SITES

Site 26 was designated in the 1988 PA/SI report and includes all USTs that have been used at NAVSTA TI to store fuels and oils for package heaters or boilers at individual buildings, backup power generators, gas stations, firefighter training, and aviation. The USTs were filled either through underground pipeline or by tanker truck. In addition, a number of USTs were used to store waste oil. Most of the USTs were installed in the 1940s. The USTs were removed from service over time as the specific uses of the buildings changed; many of the USTs were out of service by the 1980s.

The Navy began investigating known and suspected USTs in the early 1980s because of California's UST operating regulations. In addition to the USTs mentioned previously, numerous USTs were outside of site boundaries and were reported as individual closure efforts. The Navy submitted the facilitywide UST summary report (October 2003), which assigns each of the 96 USTs identified to one of three categories:

- **Known USTs:** USTs that are known to have existed.
- **Suspected USTs:** USTs that are suspected to have existed but that were removed previously or that may have been abandoned.
- **Previously suspected USTs:** USTs that were once thought to have existed but that are now suspected to have never existed based on further investigation.

Regulatory concurrence on closure or NFA has been achieved for 89 of the 96 known, suspected, or previously suspected USTs at NAVSTA TI. Seven USTs are pending closure or NFA. USTs with known releases to the environment are closed pursuant to Title 23 of the *California Code of Regulations*. If the UST was used to store heating oil and had a capacity of less than 1,100 gallons, or if no release occurred, the Navy requested NFA and submited a letter to the Water Board for concurrence. The Navy demonstrated to the Water Board that NFA is required for sites that have received NFA concurrence. The Navy has completed all site investigations and remedial actions related to the UST site for sites that received regulatory closure.

All USTs on Navy property have been removed from service; the only active USTs on NAVSTA TI are operated by the USCG at its facility on YBI. The current status of all known and suspected USTs on TI and YBI are summarized below as well as shown on Figures 7 and 8.

# Previously Suspected USTs with NFA Concurrence (16 Sites)

Regulatory concurrence for NFA was received December 2, 2003, for 16 previously suspected USTs located at NAVSTA TI.

Letter Date	TI UST	YBI UST
December 2, 2003	3A, 3B, 7, 145, 180F, 180G, 267, 368C, 450, 452, 453, 461, FF8, and M	213, 262

### Known or Suspected USTs with Regulatory Closure or NFA Concurrence (73 Sites)

The Water Board issued concurrence for NFA on 24 USTs on TI and 19 USTs on YBI. Regulatory closure has been received for 25 USTs on TI and five USTs on YBI.

USTs with NFA Concurrence		
Letter Date	TI UST	YBI UST
July 23, 2002		1 through 7, 9, 10, 62, 240
September 5, 2003	234	57
February 12 <sup>6</sup> , 2004	15, 26, 29	
June 17, 2004	140	204A, 204B, 204C, 204D, 221, 230, 237
September 21, 2004	227	==
May 9, 2005	14A, 14B	RM RM
July 18, 2005	85, 330A, 330B, 330E, 330F	
October 11, 2005	180C	
October 28, 2011	143A, 143B, 143C, 143D, 143E, 143F, 143G, 143H, 143I, 2B	<del>-</del> -
	Closed USTs	
Letter Date	TIUST	YBI UST
July 22, 1996	1B, 1C, 1D, 1F, 2A, 2D, 180A, 180B, 330C, 330D	111, 169
October 3, 1997	180D, 180E, 230, 257	8 [QTR8, QR08]
July 7, 2000	1G [469]	
February 25, 2002	1A, 1E, 2C, 368A	NA MA
October 23, 2002		66
December 17, 2003	368B	
February 10, 2004	201	270
May 5, 2004	225A, 225B, 225C, 225D	

# <u>USTs Requiring Regulatory Closure or NFA Concurrence (7 Sites)</u>

Six USTs on TI (240A, 240B, and 248A through 248D) and one UST on YBI (238) still require regulatory closure or NFA concurrence.

A final closure report for Site 6 was submitted on December 16, 2005, and requested closure for six USTs: 240A, 240B, and 248A through 248D. However, the Water Board indicated it appeared based on soil, soil gas, and groundwater data that ongoing sources had not been entirely

<sup>&</sup>lt;sup>6</sup> This date is approximate; the date on the letter is illegible.

removed and remediated. Thus, the Navy performed additional excavation in 2013, and a PCSR report was finalized in 2013. The Navy will request closure of USTs 240A, 240B, and 248A through 248D in 2016 after future groundwater monitoring is completed.

Further investigation of UST 238 on YBI (on USCG property) is on hold until Caltrans completes work in the vicinity.

Transfer Category	2006 TI and YBI FOSTs (FOSTs 1 and 2), FOST 4, and a FOST parcel in upcoming FOST	
Regulatory Classification	Petroleum	
Acreage	Not applicable	
Source of Concern	USTs, ASTs	
Contaminants of Concern	Petroleum	
Interim Actions	Petroelum corrective action conducted in March 2013 for USTs 240A and 240B in Site 6.	
Current Status	<ul> <li>Additional groundwater monitoring planned for Site 6 (USTs 240A, 240B, 248A, 248B, 248C, and 248D).</li> </ul>	
	<ul> <li>Investigation of UST 238 on YBI (on USCG property) is on hold until bridge construction is complete.</li> </ul>	
USTs/ASTs	Not Applicable	
Site Closeout	November 2016 for Site 6 USTs 240 and 248 series; November 2017 for suspected UST 238 on YBI (on USCG property)	

#### **INACTIVE FUEL PIPELINE SITES**

A former fuel pipeline system was located on NAVSTA TI. Six main fuel lines (D1, D2, D4, D5, F2, and GS-1 [evaluated as part of D2A]) were installed on TI as early as the 1940s and transported gasoline, diesel, bunker C fuel, and other petroleum products. Figures 7 and 8 shows the fuel pipeline sites. Reports indicate that some fuel lines were inactive as early as 1945, the remaining fuel lines were reportedly removed from service in 1989. Three major fuel lines (F-01, F-02, F-03) were installed in 1944 to carry fuel oil from storage tanks to steam boilers on YBI and have been inactive since 1980. In addition, the Causeway Pipeline system was installed circa 1939 to convey fuel from the Clipper Cove Tank Farm on YBI to TI, though the system ceased to be used after Pan American Airlines stopped operating in Clipper Cove in the 1946. The Building 530 Pipeline system supplied fuel between ASTs 103/104 and Building 530, which was built in 1987. A majority of the pipeline systems on TI and YBI has been removed or abandoned in place.

A total of 16 pipeline sites were investigated at NAVSTA TI. Of those, 14 fuel pipeline sites have received closure. Two sites (YF3 and USCG) were identified as portions of the pipeline system where additional corrective actions or evaluations may be necessary. An investigation of petroleum contamination at Inactive Fuel Line YF3, identified under the Petroleum Program, was documented in the Final Field Activity Report dated March 19, 2013. As a result, the Navy is conducting a SLERA to evaluate the risks due to residual concentrations of TPH as diesel and as motor oil. The Navy plans to collect additional data at Site YF3 in response to Water Board comments received on the SLERA. The new data will be used to support closure of YF3 by meeting the general and medium-specific criteria of the Water Board's Low-Threat Case Closure policy.

### Remaining Fuel Pipeline Sites (2 Sites)

The following fuel lines on YBI have not received regulatory closure: YF3 and USCG.

# **Closed Fuel Pipeline Sites (14 Sites)**

The fuel lines listed below on TI and YBI have received regulatory closure.

- Causeway Pipeline Water Board NFA concurrence letter received March 11, 2003.
- **Building 530 Pipeline** Water Board NFA concurrence letter received July 9, 2003.
- **D1A**, **D1C**, **D2A**, **D2B**, **D4A**, **D4B**, **D5**, and **YF1** Water Board NFA concurrence letter received February 12, 2004 (date is approximate; the date on the letter is illegible).
- YF2 Water Board NFA concurrence letter received June 17, 2004.
- **F2A** –Water Board NFA concurrence letters received May 9, 2005 and August 22, 2005.
- **D1B** Water Board NFA concurrence letters received July 20, 2005 (for shallow soil only) and May 15, 2006.
- **F2B** Water Board NFA concurrence letter received August 22, 2005.

Transfer Category	2006 TI and YBI FOSTs (FOSTs 1 and 2), FOST 4, and various FOST parcels in an upcoming FOST
Regulatory Classification	Petroleum
Acreage	Not applicable
Source of Concern	Pipeline
Contaminants of Concern	Petroleum
Interim Actions	Pipeline removal action completed; floating product removal completed.
Current Status	<ul> <li>YF3 - Additional investigation completed, and a SLERA is being finalized.         Additional data gaps investigation requested by the Water Board in 2014.     </li> <li>USCG - Investigations postponed until after Caltrans has completed bridge reconstruction activities in the area.</li> </ul>
USTs/ASTs	USTs associated with the pipelines have been removed
Site Closeout	May 2006 or earlier for majority of sites, with the exception of YF3 (March 2016) and USCG (July 2019) sites

# **COMPLIANCE AND BASEWIDE PROGRAMS**

Polychlorinated Biphenyls Program

Residential Lead-Based Paint Program

Radiological Program

Asbestos-Containing Material Program

Groundwater Monitoring Program

Regulatory Interaction Support

Community Relations Program

Transfer Related

### POLYCHLORINATED BIPHENYLS PROGRAM

PCB contamination has been investigated and remediated at NAVSTA TI under CERCLA and TSCA regulations and guidelines (Figure 9). PCBs exist at various locations and concentrations at NAVSTA TI. A remedial program was initiated at NAVSTA TI for electrical equipment, such as high-voltage primary transformers with dielectric fluid that may contain PCBs. Transformers were inventoried under the program, and several transformers identified as containing PCBs were removed between 1995 and 1996. A 1995 EBS documented spills and stains potentially related to PCBs. The Navy conducted an additional evaluation by reviewing aerial photographs and historical information on building usage.

PCBs have been investigated under CERCLA at the following IR sites: Site 3 (PCB Equipment Storage Area), Site 7 (Pesticide Storage Area), Site 9 (Foundry), Site 10 (Bus Painting Shop), Site 11 (YBI Landfill), Site 12 (Old Bunker Area), Site 21 (Vessel Waste Oil Recovery Area), Site 24 (Dry Cleaning Facility), Site 31 (Former South Storage Yard), and Site 32 (Former Training and Storage Area).

The Navy investigated all known former PCB-containing equipment within FOST 1 and 2 areas in May 2004 to confirm that property is suitable for transfer (see Figure 9). The Navy also sampled all equipment locations that exhibited suspicious staining and the remaining (unstained) equipment locations in areas not part of FOST 1 and 2 in summer 2006. A summary report of sample results was published in February 2008. PCBs were abated at some sampled equipment locations in spring 2008 and a final summary report of activities was submitted March 9, 2009. The following table lists the locations identified in the February 2008 PCB summary report as requiring ICs. Locations in this table determined to contain elevated PCB concentrations, and that will be addressed through LUCs, will be further addressed and defined by the Navy during the transfer of NAVSTA TI.

Locations Requiring Institutional Controls				
6585265	T-114A and B	TX-118	TX-139	TX-147
C-598	T-1012	TX-127	TX-140	TX-252
SW-1144	T-1016	TX-138	TX-146	TX-2045
SW-1146	T-1018			

In addition, seven locations were identified in the February 2008 PCB summary report as requiring remediation: EP-108-1, T-1102, TX-120, TX-152(1), TX-152(2), SW1-73A/B/C, and T-104. PCB abatement was performed at four of the seven locations requiring remediation (EP-108-1, T-1102, TX-120, TX-152[2]) in spring 2008, and a final summary report of activities was submitted on March 9, 2009. PCB-contaminated soil adjacent to Building 1102 will be addressed during a forthcoming project in Site 12 at two of the seven locations (SW1-73A/B/C and T-104).

A removal action was completed at Site 32 and transformer location TX-152(1) under the TSCA PCB remediation program in early 2010. The Site 32 PCSR was finalized on July 13, 2011. Based on the Navy's post-remedial activity screening evaluation, residual contaminant concentrations were compared with screening criteria made up of updated health-based

screening concentrations and site screening criteria established for Site 32 in the 2009 work plan. The results of these comparisons indicated that nearly all residual chemical concentrations are below updated health-based screening concentrations and all residual concentrations are below the site screening criteria for Site 32; therefore, no further action under CERCLA was required. Furthermore, a year of post-removal action groundwater monitoring was completed in February 2012 and summarized in a report finalized in July 2012. All concentrations for chemicals of concern were either non-detected or detected at low levels during all four quarterly sampling events. NFA was recommended for groundwater at Site 32 (see previous CERCLA Site 32 discussion).

Transfer Category	2006 TI and YBI FOSTs (FOSTs 1 and 2), FOST 4, and various FOST parcels (upcoming FOST)
Regulatory Classification	TSCA and CERCLA
Source of Concern	Transformers and fluid-filled electrical equipment and past disposal activities
Contaminants of Concern	PCBs
Interim Actions	None
Current Status	None
USTs/ASTs	Not applicable
Site Closeout	Closed (with exception of some CERCLA sites)

#### RESIDENTIAL LEAD-BASED PAINT PROGRAM

The Residential Lead-Based Paint Hazard Reduction Act of 1992, Title X of the Housing and Community Development Act (Public Law No. 102-550), applies at NAVSTA TI. As part of Title X, Congress amended the 1971 Lead-Based Paint Poisoning Prevention Act (42 *United States Code* [U.S.C.] Sections 4801-4846) and added a new Title IV to TSCA. Under this law, certain federally owned housing constructed before 1960 must be inspected for LBP, and LBP hazards must be abated. In addition, federally owned housing constructed after 1960 and before 1978 must be inspected for LBP hazards and the results disclosed to prospective property recipients (42 U.S.C. Section 4822).

LBP may be present on the interior and exterior surfaces of nonresidential buildings at NAVSTA TI because many were constructed before 1978. Public Works Center Norfolk began inspecting the family housing at NAVSTA TI for LBP in 1995. In October 1999, Engineering Field Activity West documented a completed LBP assessment and a "mini" risk assessment of facilities on NAVSTA TI. Facilities were selected under the implementing regulations for Title X of the Housing and Community Development Act. Pursuant to Title X, not all facilities require an inspection for LBP.

To date, LBP at all pre-1978 residential housing on TI and YBI has been assessed. LBP at all pre-1960 YBI residential housing has been abated, and hazard reduction measures were put in place to protect the residents. Friction surfaces, such as window sashes, were stripped to the original wood surface and repainted. All other interior and exterior surfaces containing LBP were covered with a 20-year encapsulating paint. To ensure all hazard reduction measures remain protective, a re-evaluation survey is conducted every 2 years per the recommended U.S. Department of Housing and Urban Development (HUD) schedule. LBP in residential housing on YBI was re-evaluated between April and May 2004 and again between May and July 2006. As required by the HUD guidelines, the survey included (1) a 100 percent visual survey, (2) two composite dust samples for 100 percent of all pre-1960 housing, and (3) two composite dust samples from a representative sample of the post-1960 housing. LBP maintenance was conducted during the winter of 2006 at Quarters 2 through 7, 240, 83, and 61. Another LBP re-evaluation of the residential housing on YBI and TI was completed in 2009 and finalized in a report dated February 28, 2011.

Soil samples were also collected to evaluate the status of drip line and mid-yard areas at representative TI and YBI residential buildings. Based on the analytical results, soil abatement of the planter boxes and drip line areas was conducted in accordance with Title X, HUD, and Navy Policy at Quarters 1 through 7, 10, and Buildings 62, 83, 205, and 230 on YBI. HUD guidelines state only bare soils may pose a hazard, and soils covered by grass, concrete, or asphalt are protective. Any future disturbance of the concrete or asphalt at these buildings will require further evaluation for lead. The Navy will either abate or require the transferee to abate any LBP hazards found in existing residential facilities within 1 year after they are transferred. If an existing residential facility is scheduled for demolition or nonresidential use, it will not be inspected or abated for LBP. Buildings should be demolished according to applicable laws and regulations.

Transfer Category	2006 TI and YBI FOSTs (FOSTs 1 and 2), FOST 4, and various FOST parcels in an upcoming FOST	
Regulatory Classification	Title X Housing and Community Development Act, Title IV TSCA	
Source of Concern	House paint/LBP	
Contaminants of Concern	Lead	
Interim Actions	<ul> <li>LBP risk assessment on TI and YBI residential housing buildings completed.</li> <li>Interior, exterior, and soil abatement on pre-1960 YBI residential housing buildings completed.</li> <li>LBP maintenance conducted during winter of 2006 at Quarters 2-7, 240, 83, and 61.</li> </ul>	
Current Status	Not applicable	
USTs/ASTs	Not applicable	
Estimated Site Closeout	Transfer	

### RADIOLOGICAL PROGRAM

### Site 2

Site 2 (Parcel T102 [shown in Figure 3] and located within the footprint of Site 12), the Radiation Training Area, was located near the intersection of 12th Street and Avenue A on the northwestern side of TI. This area contained a ship mockup used for radiation training. Operations in this area began in the early 1950s and ceased in 1969 when the school moved to its current location in Building 371 (Parcel T111, within Site 32). Radiation sources were identified as potential contaminants from the radioactive water generated during training. The 1988 PA/SI recommended this site not be carried forward in an RI. The site is considered closed under the CERCLA Program.

### Historical Radiological Assessment (HRA) and Supplemental Technical Memorandum

The Navy completed a basewide HRA in 2006 to document use of radioactive materials and to present a comprehensive history of radiological operations conducted by the Navy at NAVSTA TI. In the first phase of the HRA, the Navy reviewed documents and conducted interviews to identify all historical radiological sites on NAVSTA TI and to determine if there is a need to conduct a Phase II survey. Results of the first phase of the HRA are reported in the "Final Naval Station Treasure Island Historical Radiological Assessment" dated February 10, 2006. The following sites were identified for further evaluation: Building 233 and its associated drain lines, four SWDAs located within Site 12, and Buildings 343 and 344.

### **Building 233**

Building 233 (Parcel T013 [shown in Figure 3]), the former Radiation Detection, Indication, and Computation Instrument Calibration School, is located on Avenue M between 3rd and 4th Streets on the eastern side of TI. In 1950, a spill of radium sulfate was reported in one of the laboratories located in Building 233. Students unknowingly tracked the radiological material throughout the building before the spill was discovered. The U.S. Naval Radiological Defense Laboratory decontaminated and cleaned up the building. Although the building was decontaminated, the Navy needed to verify that the 1950 cleanup met current standards. The Navy therefore worked with DTSC and CDPH to complete a survey of Building 233 by May 2006. A radiological assessment of Building 233 was conducted and a survey report was issued in January 2007. It was determined that further remediation was necessary. After the highest residual contamination had been removed, the building was demolished in 2011. Foundation, utility, and surface contamination was then removed. The Navy has completed the characterization, remediation, and FSS for the building footprint. The FSS report was finalized in October 2014, and the Navy is currently awaiting a Recommedation for Unrestricted Radioligical Release (RURR) letter from the State of California. Storm and sanitary drain lines and the surrounding area are also being investigated in accordance with MARSSIM (Revision 1 August 2000, with the June 2001 updates).

### Soild Waste Disposal Areas (SWDA)

An NTCRA began in May 2007 at three Site 12 SWDAs along the shoreline. During the NTCRA, LLROs containing radium-226 were found within the SWDAs. Confirmation samples will be collected in the SWDA areas once excavations are completed. The Navy estimates that the removal action field work for all SWDAs will be completed in 2016. The FSS for all

SWDAs will be performed in accordance with MARSSIM. A final RACR/FSS is anticipated in June 2021 for the SWDAs after all work is complete. A detailed schedule of the radiological investigation is included in the Radiological Program schedules (see Appendix B).

# Buildings 343 and 344

A radiological status survey for Buildings 343 and 344 and Building 233 drain lines was conducted in September 2007. In 2008, FSS reports were prepared for Buildings 343 and 344. The Buildings 343 and 344 and the Building 233 Drain Lines Scoping Survey Reports were finalized in the fall 2008. DTSC and CDPH provided free release for Buildings 343 and 344 in 2008. Additional radiological surveying is planned in 2015 for adjacent Building 342 because of the presence of a counting room, as well as the outside yard area of the building compound.

### Historical Radiological Assessment - Supplemental Technical Memorandum (HRASTM)

After the final HRA was published, LLROs were found in the SWDAs located in Site 12, prompting increased concern with the potential for LLROs to have been disposed of in other debris disposal areas. A HRASTM for TI was issued in July 2014 to update any new findings after the 2006 HRA and document any new areas requiring further radiological investigation.

Based on the HRASTM, several additional areas were identified as impacted. The Navy completed or is currently conducting radiological surveys at the following sites between 2013 and 2014 (see Figure 10):

- USS *Pandemonium* Site II (NE), within Site 32 (former site of the training ship mock-up, identified as impacted based on a reevaluation of existing data after the HRA).
- Site 12 non-SWDA areas and roadways, including housing interiors.
- Building 3 and associated sanitary sewer lines (impacted based on ship repair activities and the presence of a former optical shop in the building during World War II [WWII]).
- Selected sanitary sewer and storm lines associated with Building 233.
- Site 6 RCA (Soil Stockpile and Truck Loading & Decon Site) (impacted based on remedial activities done in association with the Site 12 SWDAs).

The Navy plans to conduct additional radiological surveys at the following sites in 2015 (see Figure 10):

- Site 30 and adjacent areas to north and south (excluding Site 31) (impacted based on investigatory results obtained after the HRA).
- Lot 69 (Supply Department Salvage Yard, impacted based on the handling of salvage materials in that area).
- Building 342 (impacted based on the presence of a counting room, as well as the outside yard area of the building compound).

- Building 461 and vicinity (impacted based on the presence of a counting room, as well as the outside yard area of the building compound).
- Vicinity of fomer Salvage Yard and Current Sewage Treatment Plant (impacted based on probable WWII-era salvage yard was identified as impacted based on the potential for scrap metal recycling activities adjacent to former Building 327 during WWII).
- Site 20 (impacted based on its location within Site 12).
- Miscellaneous sanitary sewer lines (force main and lines associated with Building 342).

Additional areas planned for radiological surveys in 2020 include (see Figure 10):

- Navy contractor compound (Building 570 and a surrounding laydown area; impacted based on remedial activities done in association with the Site 12 SWDAs).
- Navy laydown area (adjacent to Building 461, impacted based on remedial activities done in association with the Site 12 SWDAs).

Transfer Category		
Regulatory Classification	CERCLA	
Source of Concern	Radium sulfate spill and historical radiological operations	
Contaminants of Concern	Radium-226, radiological materials	
Interim Actions	<ul> <li>1950s cleanup at Building 233</li> <li>Building 233 was demolished in January 2011</li> <li>Ongoing SWDA NTCRAs</li> </ul>	
Current Status	<ul> <li>NTCRA of Site 12 SWDAs is underway.</li> <li>Gamma walkover surveys in non-SWDA areas of Site 12 and interior housing scans are complete; summary reports are being prepared.</li> <li>Building 233 FSS and reporting are complete; awaiting RURR lett from the State of California.</li> <li>Preparations are underway for radiological surveys planned for 2015.</li> </ul>	
USTs/ASTs	Not applicable	
<ul> <li>January 2015 for Building 233 (RURR letter)</li> <li>March 2015 for Basewide Radiological Surveys Part I</li> <li>November 2015 for Basewide Radiological Surveys Part II</li> <li>February 2022 for Building 570 Radiological Survey</li> </ul>		

### ASBESTOS-CONTAINING MATERIAL PROGRAM

Beginning in 1995, several surveys to identify the presence of ACM have been completed at NAVSTA TI. The Navy conducted an asbestos survey of 108 major nonresidential buildings at NAVSTA TI and compiled the results in an asbestos survey report in 1995. In 1997, Radian, Inc., completed a more comprehensive asbestos survey for a total of 212 nonresidential buildings, including an inspection of the 108 buildings previously surveyed, to estimate the scope and costs for abating damaged, friable asbestos. In 1998, the Supervisor of Shipbuilding, Conversion, and Repair, Portsmouth, Virginia, Environmental Detachment, Vallejo (SSPORTS) performed an asbestos survey of underground steam utility lines and miscellaneous facilities. Results of the survey of underground steam utility lines indicated that ACM-wrapped pipes exist only within a portion of the property, documented in the Asbestos Building Survey Report issued in November 1998 by SSPORTS and as discussed further in the FOST. Remedies for ACM were implemented.

Friable, accessible ACM identified during surveys was remediated beginning with 38 buildings in 1998 by Allied Technology Group, Inc. (ATG). ATG remediated an additional 20 buildings in 1998. In 1999, SSPORTS remediated friable ACM found in residences at both YBI and TI. In 2002, Mendalian Construction, Inc., covered the crawlspaces to prevent access, posted ACM signs at seven barracks on TI, and abated and removed ACM from six quarters on YBI. A re-evaluation of ACM in 2009 was finalized in a report dated February 28, 2011. All known damaged, friable, or accessible ACM has been abated within the TI and YBI FOST areas, and remaining ACM does not pose a threat to human health.

Notices and restrictions related to asbestos were identified for both TI and YBI in FOSTs 1, 2, 3, and 4.

Transfer Category	2006 TI and YBI FOSTs (FOSTs 1 and 2), FOST 4, and various FOST parcels in an upcoming FOST	
Regulatory Classification	Clean Air Act	
Source of Concern	ACM	
Contaminants of Concern	Friable, accessible ACM	
Interim Actions	<ul> <li>1998 remediation of 38 buildings</li> <li>1998 remediation of 20 buildings</li> <li>1999 remediation of residences</li> <li>2002 remediation of crawl spaces, barracks and six quarters on YBI</li> </ul>	
Current Status	Not appliable	
USTs/ASTs	Not applicable	
Estimated Site Closeout	Transfer	

#### **GROUNDWATER MONITORING PROGRAM**

The purpose of the groundwater monitoring program is to evaluate sites with known or suspected impacts to groundwater using data collected from a network of monitoring wells as well as data from other environmental investigations. The principal objective at the identified groundwater sites was to determine whether receptors at the terminus of the groundwater pathway — aquatic life at the shoreline along NAVSTA TI — are being exposed to concentrations of contaminants that exceed applicable toxicity criteria for (1) protection of saltwater life, or (2) protection of humans who consume fish. Potential impacts to groundwater because of releases of hazardous substances and petroleum-related chemicals from operations when NAVSTA TI was an active base are being studied under the facility-wide groundwater monitoring program.

It was reported in 2004, in support of environmental restoration activities, that 346 groundwater monitoring and remediation wells were being maintained at NAVSTA TI (181 monitoring wells and 165 remediation wells). In a limited number of cases, wells from inactive sites were used as downgradient, crossgradient, or upgradient wells to collect data for an active investigation area. In 2011, 35 wells from various sites, predominantly closed petroleum program sites, were decommissioned.

Currently, only groundwater at Sites 6, 12, 21, and 24 is monitored as the petroleum program sites have received NFA concurrence. Contaminants defined as hazardous under CERCLA have been detected at elevated concentrations in samples from Sites 6, 12, 21, and 24. Groundwater monitoring results are reported annually and will be used in assessing risk in CERCLA decision documents or petroleum closure reports.

Groundwater monitoring at Site 6 continues after the UST 240 removal action was completed and will support a closeout request in 2016. Semiannual groundwater monitoring at Site 12 is estimated to continue through the end of the RACR in June 2021. Groundwater monitoring, as well as soil gas, was selected as part of the final remedy for Site 21 in the ROD/RAP. Semiannual groundwater monitoring continues at Site 24 and is planned to continue through at least the 2019 5-year review period.

Groundwater was monitored at Site 32 for 1 year after a removal action was completed for PCBs, arsenic, and TPH in soil. Monitoring was completed in February 2012, and a summary report was finalized on July 30, 2012. All COC concentrations were non-detected or were detected at low levels during all four quarterly sampling events. There is no indication of residual petroleum contamination in the groundwater. No further actions were recommended for groundwater at Site 32.

### REGULATORY INTERACTION SUPPORT

The Navy provides support for regulatory interaction for the entire TI environmental program. Included in the regulatory interaction support are the following deliverables.

### **BCT Meetings and Minutes**

As part of the regulatory interaction support, the Navy holds monthly meetings with the members of the BCT to discuss current topics, issues, and decisions that pertain to the environmental restoration program for TI. Meeting minutes are prepared to document decisions, actions, processes, and discussions. The minutes are reviewed by all members and revised based on any comments received.

### Site Management Plan

The Navy prepares and delivers annual updates of this Site Management Plan to identify site closure schedules and strategies and to aid in management of IR sites. The IR sites are at various stages in the environmental restoration process. The status and strategies at each site are discussed in this document, as well as the current basewide issues that must be addressed before property may be transferred for development. The schedules provided in Appendix B update the schedule produced in the 1992 FFSRA and supplement the IR sites not identified at the time of the FFSRA.

#### **COMMUNITY RELATIONS PROGRAM**

The Navy provides direction and support for community relations activities on site-specific and basewide levels. Included in the community relations support are the following deliverables.

### **Restoration Advisory Board Meetings and Minutes**

The Navy hosts Restoration Advisory Board (RAB) meetings regularly as a means to communicate, share, and present current information on the environmental restoration program to the RAB and community members. Fact sheets, meeting minutes, telephone conferences, and meetings are used to provide a method for the RAB to have input on the environmental restoration process at NAVSTA TI. Meeting minutes are prepared for public viewing. The minutes are reviewed by all members of the RAB and revised based on any comments received. The final minutes are included in the information repositories and on the Navy's website.

### **Community Relations Plan**

The Community Relations Plan (CRP) identifies community interest in the investigation and cleanup of contaminated soil, sediments, and groundwater at NAVSTA TI, and outlines community relations activities to inform and involve the community. The original CRP for NAVSTA TI was issued in 1997, and a final CRP was issued in 2002 and updated in 2006, 2008, and 2014.

The purpose of the CRP is to identify the NAVSTA TI community, describe community outreach activities conducted in support of the IR Program, identify community interest in and concern about environmental activities at NAVSTA TI, facilitate two-way communication with the surrounding community and other interested parties, and meet all public involvement regulatory requirements for the environmental cleanup program at NAVSTA TI.

### Fact Sheets, Progress Reports, Proposed Plans, and Work Notices

Fact sheets, progress reports, proposed plans, and work notices are prepared on an as-needed basis depending on commencement or completion of significant milestones such as an upcoming field investigation or a significant report. Fact sheets, progress reports, and proposed plans are distributed to the entire TI community mailing list, which includes the DTSC mandatory mailing list. Work notices are distributed to residents or businesses who may be affected by the field work. In addition, the Navy will prepare progress reports to update the progress of field work on the island.

Of particular interest is the Site 12 environmental program. Work notices are sent to residents any time they are affected by work in Site 12. In addition, fact sheets will be distributed on all projects where radiological data have been collected at Site 12.

### **Public Notices**

Public notices are prepared on an as-needed basis for announcement of significant milestones, such as announcement of public review and comment periods for proposed plans and completion of significant documentation such as a ROD/RAP. Public notices are typically published as an in-column ad in the *San Francisco Examiner* newspaper.

#### **Information Repository Support**

On a quarterly basis, the Navy conducts inspections and updates to the TI information repositories located at Building 1 on TI and at the San Francisco Main Public Library. Updates include organizing, indexing the documents, and providing updates of the index and document availability.

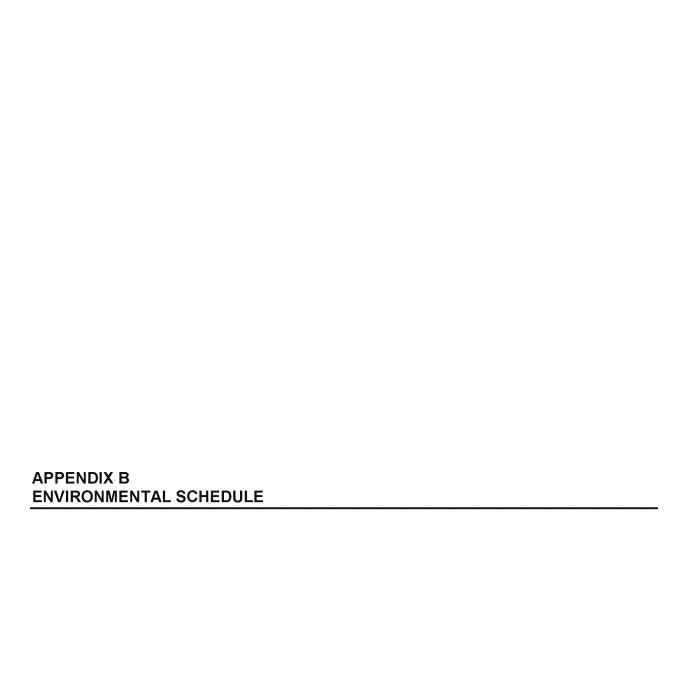
#### TRANSFER RELATED

A basewide EBS was conducted in 1994. In 2005, the Navy updated the EBS with a supplemental EBS based on progress made under the Navy's environmental programs and in preparation for two FOST documents that summarized how the requirements and notifications for hazardous substances, petroleum products and derivatives, and other regulated material have been met for parcels on TI and YBI.

The TI FOST (FOST 1) for four parcels and YBI FOST (FOST 2) for one parcel were finalized in 2006. The Navy prepared a third FOST (YBI FOST 3) for five parcels on YBI to support property transfer to the city; the YBI FOST 3 was finalized on January 17, 2012. FOST 4 was prepared for nine parcels on TI and finalized on October 30, 2014.

An Economic Development Conveyance Memorandum of Agreement was signed between the Navy and TIDA on July 2, 2014. Through the BRAC process, the Navy intends to transfer, by deed, property identified in TI FOSTs 1 and 4 and property identified in YBI FOSTs 2 and 3 to the City of San Francisco in early 2015.

The Navy will prepare additional FOSTs to support transfer of property on TI in coming years. Appendix B has the anticipated schedules for upcoming FOST documents and the related State of California's Covenant to Restrict Use of Property documents that will be completed to support property transfers in the future.



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TABLE B-1: SITE INVENTORY
Site Management Plan, Naval Station Treasure Island, San Francisco, California

Site	Program	Status
Site 1	CERCLA	Closed - Received agency concurrence on March 20, 2002.
Site 2	CERCLA	Closed – Site recommended for NFA in 1988 Final PA/SI.
Site 3	CERCLA	Closed - Received agency concurrence on March 20, 2002.
Site 4/19	Petroleum	Closed – NFA concurrence letter received from Water Board dated December 17, 2003.
Site 5	Petroleum	Closed - Merged into Site 24 by letter dated January 17, 2001.
Site 6	CERCLA	Active - Transferred from Petroleum Program on September 18, 2003.
Site 7	CERCLA	Closed – Received agency concurrence on November 1, 2005.
Site 8	CERCLA	Active - On hold; pending completion of Caltrans activities.
Site 9	CERCLA	Closed – No Action ROD signed October 2, 2007.
Site 10	CERCLA	Closed – No Action ROD signed October 2, 2007.
Site 11	CERCLA	Active - On hold; pending completion of Caltrans activities.
Site 12	CERCLA	Active
Site 13	CERCLA	Closed – No Action ROD signed April 7, 2005.
Site 14/22	Petroleum	Closed – NFA concurrence letter received from Water Board dated July 18, 2005.
Site 15	Petroleum	Closed – NFA concurrence letter received from Water Board dated September 2004.
Site 16	Petroleum	Closed – NFA concurrence letter received from Water Board dated June 17, 2004.
Site 17	Petroleum	Closed - Merged into Site 24 by letter dated January 17, 2001.
Site 18	CERCLA	Closed – Site recommended for NFA in 1988 Final PA/SI.
Site 20	Petroleum	Closed – NFA concurrence letter received from Water Board dated June 17, 2004.
Site 21	CERCLA	Active - ROD signed February 19, 2013; LUC inspections ongoing
Site 23	CERCLA	Closed – Site recommended for NFA in 1988 Final PA/SI.
Site 24	CERCLA	Active
Site 25	Petroleum	Closed – NFA concurrence letter received from Water Board dated October 28, 2011.
Site 26	Petroleum	Closed - See entry for "UST Sites" below.
Site 27	CERCLA	Active ROD signed March 28, 2012; LUC inspections ongoing
Site 28	CERCLA	Pending No Action ROD signed November 22, 2010. Closure –
Site 29	CERCLA	Active - On hold; pending completion of Caltrans activities.
Site 30	CERCLA	Active - ROD signed August 5, 2009; LUC inspections ongoing
Site 31	CERCLA	Active
Site 32	CERCLA	Active
Site 33	CERCLA	Closed - NFA concurrence received on October 29, 2104 in final RACF
Pipeline Sites	Petroleum	With the exception of Pipeline Sites USCG and YF3, all pipeline sites have received concurrence letters and are closed.
UST Sites	Petroleum	With the exception of UST 238 on YBI and the USTs associated with Site 6 (USTs 240 and 248), all USTs have received concurrence letters and are closed.

ID	0	Task Name	Duration	Start	Finish	Predecessors
1	(	CERCLA PROGRAM	8306 days	Wed 3/20/02	Tue 11/15/33	
2	<b>√</b> \	EBS DATA GAP INVESTIGATION COMPLETED	502 days	Wed 4/2/03	Tue 2/22/05	
22	<b>√</b>	SITE 1 - Closed	1 day	Wed 3/20/02	Wed 3/20/02	
23	<b>√</b>	SITE 3 - Closed	1 day	Wed 3/20/02	Wed 3/20/02	
24	<b>√</b>	SITE 7 - Closed	880 days	Fri 8/16/02	Tue 11/1/05	
28	<b>√</b>	SITE 13 - Closed	707 days	Tue 11/5/02	Sat 5/21/05	
61	<b>✓</b>	SITES 9 AND 10 - Closed	1200 days	Sun 4/6/03	Thu 11/1/07	

ID	0	Task Name	Duration	Start	Finish	Predecessors
116	<u> </u>	SITE 6 (CERCLA)	3503 days	Mon 5/12/03	Wed 10/12/16	ı
117	1 🗸	NATURE AND EXTENT DELINEATION FOR SITE 6 CERCLA	540 days	Mon 5/12/03	Tue 6/7/05	
123	<b>~</b>	REMEDIAL INVESTIGATION FOR SITE 6	690 days	Sun 10/31/04	Wed 6/20/07	
134	<b>~</b>	REVISED REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) REPORT FOR SITE 6	973 days	Mon 2/2/09	Thu 10/25/12	
158		SITE 6 RADIOLOGICALLY CONTROLLED AREA CHARACTERIZATION / FINAL STATUS SURVEY	519 days	Fri 6/14/13	Thu 6/11/15	
159	<b>~</b>	Site 6 RCA Characterization / Final Status Survey (FSS) Work Plan	315 days	Fri 6/14/13	Fri 8/29/14	
165		Final Status Survey Field Work at Site 6 RCA	60 days	Mon 9/29/14	Fri 12/19/14	164FS+20 day
166		Site 6 RCA Final Status Survey Report	137 days	Wed 12/3/14	Thu 6/11/15	
167	]	Internal Draft RCA FSS Report	24 days	Wed 12/3/14	Mon 1/5/15	165FS-13 day
168	1	Draft RCA FSS Report	57 days	Tue 1/6/15	Wed 3/25/15	167
169	1	Agency Review Draft RCA FSS Report	25 days	Thu 3/26/15	Wed 4/29/15	168
170		Final RCA FSS Report	11 days	Thu 4/30/15	Thu 5/14/15	169
171		Concur with RCA FSS Report (RURR)	20 days	Fri 5/15/15	Thu 6/11/15	170
172	<b>√</b>	PP/DRAFT RAP FOR SITE 6	334 days	Wed 12/19/12	Mon 3/31/14	
187		ROD/RAP FOR SITE 6	218 days	Mon 3/3/14	Wed 12/31/14	
188	<b>-</b>	Internal Draft ROD/RAP for Site 6	68 days	Mon 3/3/14	Wed 6/4/14	182
189	<b>V</b>	Draft ROD/RAP for Site 6	23 days	Mon 6/23/14	Wed 7/23/14	188
190		Agency Review of Draft ROD/RAP for Site 6	21 days	Thu 7/24/14	Thu 8/21/14	189
191		Final ROD/RAP for Site 6	79 days	Fri 8/22/14	Wed 12/10/14	190
192	1	ROD/RAP Signed for Site 6	15 days	Thu 12/11/14	Wed 12/31/14	191
193	1	Public Notice of Signing ROD/RAP for Site 6	0 edays	Wed 12/31/14	Wed 12/31/14	192
194	1	REMEDIAL DESIGN / REMEDIAL ACTION FOR SITE 6	587 days	Tue 7/15/14	Wed 10/12/16	
195	<b>\</b>	Navy Award Contract for Site 6 Remedial Design, Data Gaps Sampling, and Remedial Action	55 days	Tue 7/15/14	Mon 9/29/14	
196	1	Site 6 Pre-Remedial Design Data Gaps Sampling	127 days	Tue 9/30/14	Wed 3/25/15	
197		Pre-Remedial Design Data Gaps Sampling Work Plan / Sampling and Analysis Plan	119 days	Tue 9/30/14	Fri 3/13/15	
198	」 ✔′	Internal Draft Pre-RD Data Gaps Sampling WP/SAP	44 days	Tue 9/30/14	Fri 11/28/14	195
199	]	Draft Pre-RD Data Gaps Sampling WP/SAP	26 days	Mon 12/1/14	Mon 1/5/15	198
200		Agency Review Draft Pre-RD Data Gaps Sampling WP/SAP	22 days	Tue 1/6/15	Wed 2/4/15	199
201		Final Pre-RD Data Gaps Sampling WP/SAP	27 days	Thu 2/5/15	Fri 3/13/15	200
202		Pre-Remedial Design Data Gaps Sampling Field Work	8 days	Mon 3/16/15	Wed 3/25/15	201
203		Remedial Design / Remedial Action Work Plan	171 days	Mon 3/16/15	Mon 11/9/15	
204	]	Internal Draft RD/RAWP for Site 6	60 days	Mon 3/16/15	Fri 6/5/15	20288
205		Draft RD/RAWP for Site 6	30 days	Mon 6/8/15	Fri 7/17/15	204
206		Agency Review Draft RD/RAWP for Site 6	22 days	Mon 7/20/15	Tue 8/18/15	205
207	]	Final RD/RAWP for Site 6	59 days	Wed 8/19/15	Mon 11/9/15	206
208		Remedial Action Field Work	100 days	Tue 11/10/15	Mon 3/28/16	207
209		Remedial Action Completion Report (RACR)	142 days	Tue 3/29/16	Wed 10/12/16	
210	]	Internal Draft RACR for Site 6	44 days	Tue 3/29/16	Fri 5/27/16	208
044	1	Draft RACR for Site 6	17 days	Mon 5/30/16	Tue 6/21/16	210
211			00	Wod 6/22/46	Thu 7/21/16	714
211 212		Agency Review of Draft RACR for Site 6	22 days	Wed 6/22/16	1110 7/21/10	211

ID	0	Task Name	Duration	Start	Finish	Predecessors
214	(b)	SITE 8	3938 days	Thu 12/2/04	Fri 1/3/20	
215	1 ×	INTERIM REMEDIAL INVESTIGATION FOR SITES 8 & 29	1127 days	Thu 12/2/04	Fri 3/27/09	
239		CALTRANS BRIDGE CONSTRUCTION PROJECT	1803 days	Mon 11/3/08	Wed 9/30/15	
240		REMAINING CERCLA ITEMS (IF NECESSARY)	1135 days	Sat 8/1/15	Fri 12/6/19	
241	1	SITES 8 & 29 RI ADDENDUM (IF NECESSARY)	175 days	Sat 8/1/15	Sun 4/3/16	
253	1	FEASIBILITY STUDY FOR SITES 8 & 29 (IF NECESSARY)	250 days	Tue 2/9/16	Tue 1/24/17	
267	1	PP/DRAFT RAP FOR SITES 8 & 29	229 days	Sat 12/31/16	Thu 11/16/17	
284	1	ROD/RAP SITES 8 & 29	229 days	Sat 9/23/17	Thu 8/9/18	
299	1	REMEDIAL DESIGN FOR SITES 8 & 29 (IF NECESSARY)	196 days	Thu 5/17/18	Sun 2/17/19	
311	1	REMEDIAL ACTION FOR SITES 8 & 29 (IF NECESSARY)	210 days	Sun 2/17/19	Fri 12/6/19	
322	1	SITE CLOSEOUT FOR SITES 8 & 29	20 days	Mon 12/9/19	Fri 1/3/20	321

ID	0	Task Name	Duration	Start	Finish	Predecessors
323	T '	SITE 11	3653 days	Thu 7/13/06	Mon 7/13/20	,
324	1 🗸	INTERIM REMEDIAL INVESTIGATION FOR SITE 11	924 days	Thu 7/13/06	Wed 1/27/10	
341	33	CALTRANS BRIDGE CONSTRUCTION PROJECT	1803 days	Mon 11/3/08	Wed 9/30/15	
342		REMAINING CERCLA ITEMS (IF NECESSARY)	1291 days	Sat 8/1/15	Mon 7/13/20	
343		SITE 11 RI ADDENDUM (IF NECESSARY)	175 days	Sat 8/1/15	Sun 4/3/16	
355	<b></b>	FEASIBILITY STUDY FOR SITE 11 (IF NECESSARY)	208 days	Tue 2/9/16	Sat 11/26/16	
368		PP/DRAFT RAP FOR SITE 11	231 days	Thu 11/3/16	Fri 9/22/17	
385	-	ROD/RAP FOR SITE 11	230 days	Fri 7/28/17	Fri 6/15/18	
400	1	REMEDIAL DESIGN FOR SITE 11 (IF NECESSARY)	220 days	Fri 6/15/18	Sun 4/21/19	399
412	1	REMEDIAL ACTION FOR SITE 11 (IF NECESSARY)	301 days	Sun 4/21/19	Mon 6/15/20	
425	1	SITE CLOSEOUT FOR SITE 11	20 days	Tue 6/16/20	Mon 7/13/20	424

ID	0	Task Name	Duration	Start	Finish	Predecessors
26		SITE 12	4721 days	Wed 5/7/03	Thu 6/10/21	
27		ADDITIONAL INVESTIGATION FOR COMMON AREAS	95 days	Wed 5/7/03	Fri 9/19/03	
35	~	HALYBURTON COURT SOIL GAS/INDOOR AIR SAP ADDENDUM	511 days	Fri 1/7/05	Wed 12/20/06	
146	<b>~</b>	HALYBURTON COURT INDOOR AIR EVALUATION TECHNICAL MEMORANDUM SITE 12	947 days	Mon 12/1/03	Fri 7/13/07	
152	~	ARSENIC IN GROUNDWATER TECHNICAL MEMORANDUM SITE 12	268 days	Thu 1/1/04	Tue 1/11/05	
461	<b>√</b>	ARSENIC IN GROUNDWATER PILOT STUDY	1361 days	Mon 12/11/06	Tue 2/28/12	
471	<b>√</b>	REMEDIAL INVESTIGATION FOR SITE 12	2090 days	Sun 6/20/04	Wed 6/20/12	
519	] 🗸	NON-TIME CRITICAL INTERIM REMOVAL ACTION WORK PLANS FOR SITE 12 SWDAs	316 days	Thu 12/1/05	Thu 2/15/07	
549		NON-TIME CRITICAL REMOVAL ACTION FOR SITE 12 SWDAs	2872 days	Thu 3/30/06	Fri 3/31/17	
550	<b>'</b>	Navy to award contract for Site 12 for Removal Action Work Plan and Removal Action	176 edays	Thu 3/30/06	Fri 9/22/06	
551	✓	Site 12 Remedial Action Work Plan (RAWP)	117 days	Fri 9/22/06	Tue 3/6/07	
559		Non-Time Critical Removal Action of Site 12 SWDAs	2772 edays	Mon 2/26/07	Mon 9/29/14	558FS-8 edays
560	. ✓	Non-Time Critical Removal Action Summary Open House	0 edays	Sat 10/24/09	Sat 10/24/09	
561		SWDA FINAL NTCRA REPORTS	2634 days	Mon 2/26/07	Fri 3/31/17	
562	<b>」</b> ✓	SWDA WESTSIDE (A&B) - PHASE I	2029 days	Mon 2/26/07	Fri 12/5/14	
563	<b>」</b> ✓	SWDA Westside - NTCRA Field Work (Phase I)	2594 edays	Mon 2/26/07	Fri 4/4/14	559SS
564	<b>~</b>	SWDA Westside Post-Construction Summary Report (Phase I)	576 days	Thu 9/20/12	Fri 12/5/14	
570	<b>.</b> ✓	SWDA WESTSIDE - PHASE II	506 days	Thu 5/31/12	Thu 5/8/14	
571	✓	SWDA Westside - NTCRA Work Plan (Phase II)	242 days	Thu 5/31/12	Fri 5/3/13	
582	<b>_</b>	SWDA Westside - NTCRA Field Work (Phase II)	56 edays	Fri 10/11/13	Fri 12/6/13	571
583	<b>\</b>	SWDA Westside Post-Construction Summary Report (Phase II)	164 days	Mon 9/23/13	Thu 5/8/14	
593	ļ	SWDA WESTSIDE - PHASE III	763 days	Wed 4/30/14	Fri 3/31/17	
594		SWDA Westside (A&B), Bayside (1207/1209), and North Point (1231/1233) - NTCRA Work Plan (Phase III)	257 days	Wed 4/30/14	Thu 4/23/15	
595	. ✓	Navy to award contract for Phase III	125 days	Wed 4/30/14	Tue 10/21/14	
596		Internal Draft Site 12 Phase III Work Plan	44 days		Mon 12/22/14	595
597	ļ	Draft Site 12 Phase III Work Plan	44 days	Tue 12/23/14	Fri 2/20/15	596
598	ļ	Agency Review Draft Site 12 Phase III Work Plan	20 days	Mon 2/23/15	Fri 3/20/15	597
599	ļ	Final Site 12 Phase III Work Plan	24 days	Mon 3/23/15	Thu 4/23/15	598
600		SWDA Westside, Bayside, and North Point - NTCRA Field Work (including complete backfilling of excavation SWDA Westside) - Phase III	361 days	Fri 4/24/15	Fri 9/9/16	599
601		SWDA Westside, Bayside, and North Point - Final Status Survey Plan (Phase III)	75 days	Thu 9/17/15	Wed 12/30/15	
602		Internal Draft Phase III FSS Plan	22 days	Thu 9/17/15	Fri 10/16/15	600SS+104 day
603		Draft Phase III FSS Plan	15 days	Mon 10/19/15	Fri 11/6/15	602
604		Agency Review Draft Phase III FSS Plan	23 days	Mon 11/9/15	Wed 12/9/15	603
605		Final Phase III FSS Plan	15 days	Thu 12/10/15	Wed 12/30/15	604
606		SWDA Westside, Bayside, and North Point PCSR/FSS Report - Phase III	175 days	Mon 8/1/16	Fri 3/31/17	
607		Internal Draft Site 12 Phase III PCSR/FSS Report	44 days	Mon 8/1/16	Thu 9/29/16	600FS-30 days
608		Draft Site 12 Phase III PCSR/FSS Report	50 days	Fri 9/30/16	Thu 12/8/16	607
609		Agency Review Draft Site 12 Phase III PCSR/FSS Report	22 days	Fri 12/9/16	Mon 1/9/17	608
610	]	Final Site 12 Phase III PCSR/FSS Report	59 days	Tue 1/10/17	Fri 3/31/17	609
611	<b>'</b>	SWDA BAYSIDE (1207/1209) AND NORTH POINT (1231/1233)	503 days	Fri 8/19/11	Wed 7/24/13	
612	<b>~</b>	Bayside/North Point Post-Construction Summary Report (Phase I Removal Action)	503 days	Fri 8/19/11	Wed 7/24/13	
621	ļ <u>.</u>	SWDA BIGELOW COURT	1269 days	Thu 7/8/10	Wed 5/20/15	
622	<b>~</b>	Removal Action Work Plan for Site 12 SWDA Bigelow Court	1002 days	Thu 7/8/10	Mon 5/12/14	60750 00
628		Non-Time Critical Removal Action Field Work Site 12 SWDA Bigelow Court	148 days	Mon 4/7/14	Wed 10/29/14	627FS-26 days

ID	O Task	k Name	Duration	Start	Finish	Predecessors
629	1401	Final Status Survey Report for Site 12 SWDA Bigelow	109 days	Fri 8/1/14	Wed 12/31/14	
630		Court Internal Draft SWDA Bigelow Court FSS Report	32 days	Fri 8/1/14	Mon 9/15/14	627FS+80 eday
631	🏏	Draft SWDA Bigelow Court FSS Report	41 days	Tue 9/16/14	Tue 11/11/14	630
632	<b>.</b> •	Agency Review Draft SWDA Bigelow Court FSS			Thu 12/11/14	631
JJ2		Report	22 days	vveu 11/12/14	111u 12/11/14	031
533	1	Final SWDA Bigelow Court FSS Report	14 days	Fri 12/12/14	Wed 12/31/14	632
534	†	Post-Construction Summary Report for Site 12 SWDA	119 days	Fri 12/5/14	Wed 5/20/15	
		Bigelow Court				
635	1	Internal Draft SWDA Bigelow Court PCSR Report	45 days	Fri 12/5/14	Thu 2/5/15	628FS+26 days
636		Draft SWDA Bigelow Court PCSR Report	38 days	Fri 2/6/15	Tue 3/31/15	635
637		Agency Review Draft SWDA Bigelow Court PCSR Report	19 days	Wed 4/1/15	Mon 4/27/15	636
638	1	Final SWDA Bigelow Court PCSR Report	17 days	Tue 4/28/15	Wed 5/20/15	637
639	1	1400 SERIES RADIOLOGICAL SAMPLING AND REPORT	411 days		Mon 1/26/15	
640	_/	Navy to award contract for Radiological Sampling and Report	64 days	Fri 6/28/13	Thu 9/26/13	
641	\	1400 Series Radiological Sampling Work Plan	45 days	Thu 9/26/13	Wed 11/27/13	640
646	<b>`</b>	1400 Series Radiological Sampling Work Flant	35 days	Mon 12/2/13	Fri 1/17/14	040
647	ļ <b>v</b>	1400 Series Radiological Sampling Report	266 days	Mon 1/20/14	Mon 1/26/15	
648		Internal Draft Radiological Sampling Report	40 days	Mon 1/20/14	Fri 3/14/14	646
649	J	Navy Review Internal Draft Radiological Sampling Report	40 days 40 days	Mon 3/17/14	Fri 5/9/14	648
049	✓	Navy Review Internal Drait Radiological Sampling Report	40 days	101011 3/17/14	FII 5/9/14	040
650		Draft Radiological Sampling Report	128 days	Mon 5/12/14	Wed 11/5/14	649
651	<b>,</b> •	Agency Review Draft Radiological Sampling Report	23 days	Thu 11/6/14	Mon 12/8/14	650
652	1	Final Radiological Sampling Report	35 davs	Tue 12/9/14	Mon 1/26/15	651
653	1	RADIOLOGICAL SURVEY FOR SITE 12 - SEE BASEWIDE	0 edays		Mon 3/14/16	
000		RADIOLOGICAL SURVEY AND REPORT - PART I	o caays	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	111011 07 147 10	
654	1	RADIOLOGICAL HOUSING SURVEY	183 days	Thu 6/12/14	Mon 2/23/15	
655	<b>V</b>	Radiological Housing Scans - Field Work	50 days	Thu 6/12/14	Wed 8/20/14	
656	<b>V</b>	Internal Draft Survey Completion Report	41 days	Thu 8/21/14	Thu 10/16/14	655
657	i 🗸	Draft Survey Completion Report	24 days	Fri 10/17/14	Wed 11/19/14	656
658	, ·	Agency Review Draft Survey Completion Report	23 days	Thu 11/20/14	Mon 12/22/14	657
659	1	Final Survey Completion Report	45 days	Tue 12/23/14	Mon 2/23/15	658
660	1	GATEVIEW ARSENIC/TPH AREA (1311/1313)	1241 days	Tue 4/17/12	Tue 1/17/17	
661		GATEVIEW ARSENIC/TPH AREA - SOIL GAS	124 days	Tue 4/17/12	Sun 10/7/12	
	<b>Y</b>	INVESTIGATION	-			
669		GATEVIEW ARSENIC/TPH AREA - TIME-CRITICAL REMOVAL ACTION (TCRA)	575 days		Tue 1/17/17	
670		GATEVIEW ARSENIC/TPH AREA TCRA ACTION	162 days	Wed 11/5/14	Thu 6/18/15	
	30	MEMORANDUM				
671	<b>S</b>	Internal Draft Gateview Arsenic/TPH Area Action Memo	49 days		Mon 1/12/15	717FS+10 days
672	_	Draft Gateview Arsenic/TPH Area Action Memo	32 days	Tue 1/13/15	Wed 2/25/15	671
673		Agency Review Draft Gateview Arsenic/TPH Area Action Memo	22 days	Thu 2/26/15	Fri 3/27/15	672
674		Final Gateview Arsenic/TPH Area Action Memo	59 days	Mon 3/30/15	Thu 6/18/15	673
675	İ	GATEVIEW ARSENIC/TPH AREA TCRA WORK PLAN	202 days	Fri 3/20/15	Mon 12/28/15	
676	1	Navy to award contract for Gateview Arsenic/TPH TCRA	66 days	Fri 3/20/15	Fri 6/19/15	674FS-65 days
677		Internal Draft Gateview Arsenic/TPH Area TCRA WP	44 days	Mon 6/22/15	Thu 8/20/15	676
678	İ	Draft Gateview Arsenic/TPH Area TCRA WP	15 days	Fri 8/21/15	Thu 9/10/15	677
679	†	Agency Review Draft Gateview Arsenic/TPH Area TCRA	22 days	Fri 9/11/15	Mon 10/12/15	678
		WP	1			
000		Final Gateview Arsenic/TPH Area TCRA WP	45 days	Tue 10/13/15	Mon 12/14/15	679
	1	Concurrence on Final Gateview Arsenic/TPH Area TCRA WP	10 days	Tue 12/15/15	Mon 12/28/15	680
				Tue 12/29/15	Mon 7/25/16	681
681	_	GATEVIEW ARSENIC/TPH AREA TCRA - FIELD WORK	150 days	100 12/20/10		
681 682		GATEVIEW ARSENIC/TPH AREA TCRA - FIELD WORK GATEVIEW ARSENIC/TPH AREA - POST-CONSTRUCTION	150 days 126 days	Tue 7/26/16	Tue 1/17/17	
680 681 682 683		GATEVIEW ARSENIC/TPH AREA TCRA - FIELD WORK	_			682

ID	<b>0</b> Ta	ask Name	Duration	Start	Finish	Predecessors
686		Agency Review Draft Gateview Arsenic/TPH Area PCSR	22 days	Mon 10/17/16	Tue 11/15/16	685
387		Final Gateview Arsenic/TPH Area PCSR	45 days	Wed 11/16/16	Tue 1/17/17	686
388	<b>√</b>	FEASIBILITY STUDY FOR SITE 12 (NON-SWDA AREAS)	721 days	Mon 6/13/11	Tue 3/18/14	
89	<b>~</b> \	Navy to award contract for Site 12 FS	60 edays	Mon 6/13/11	Fri 8/12/11	
590	~	DATA GAPS SAMPLING INVESTIGATION	161 days	Fri 7/6/12	Mon 2/18/13	689FS+180 days
701	✓	FEASIBILITY STUDY REPORT	260 days	Tue 3/19/13	Tue 3/18/14	
710		FEASIBILITY STUDY ADDENDUM FOR SITE 12 (NON-SWDA AREAS)	230 days	Tue 5/20/14	Mon 4/6/15	
711	<b>√</b>	ADDITIONAL SAMPLING TO SUPPORT SITE 12 FS ADDENDUM	111 days	Tue 5/20/14	Tue 10/21/14	
'12	<b>~</b>	Work Plan for Additional Sampling to Support Site 12 FS Addendum	84 days	Tue 5/20/14	Fri 9/12/14	
717	<b>~</b>	Additional Sampling to Support Site 12 FS Addendum - Fieldwork	28 days	Fri 9/12/14	Tue 10/21/14	716FS-1 day
18		FEASIBILITY STUDY ADDENDUM FOR SITE 12	121 days	Mon 10/20/14	Mon 4/6/15	
19	<b>√</b>	Internal Draft Feasibility Study Addendum	35 days	Mon 10/20/14	Fri 12/5/14	717FS-2 days
20		Draft Feasibility Study Addendum	30 days	Mon 12/8/14	Fri 1/16/15	719
21		Agency Review of Draft Feasibility Study Addendum	21 days	Mon 1/19/15	Mon 2/16/15	720
22		Final Feasibility Study Addendum	35 days	Tue 2/17/15	Mon 4/6/15	721
23		PP/DRAFT RAP FOR SITE 12	235 days	Tue 2/3/15	Mon 12/28/15	
24		Navy to award PP/Draft RAP for Site 12	44 days	Tue 2/3/15	Fri 4/3/15	722FS-45 day
25		Internal Draft PP/Draft RAP for Site 12	60 days	Mon 4/6/15	Fri 6/26/15	724
26	· ·	Draft PP/RAP for Site 12	30 days	Mon 6/29/15	Fri 8/7/15	725
27	ĺ	Agency Review of Draft PP/Draft RAP for Site 12	20 days	Mon 8/10/15	Fri 9/4/15	726
28		Final PP/Draft RAP for Site 12	59 days	Mon 9/7/15	Thu 11/26/15	727
29		Public Notice of Final PP/Draft RAP for Site 12	0 edays	Thu 11/26/15	Thu 11/26/15	728
'30		Public Comment Period of Final PP/Draft RAP for Site 12	22 days	Fri 11/27/15	Mon 12/28/15	729
'31		Public Meeting for Final PP/Draft RAP for Site 12	0 edays	Thu 12/10/15	Thu 12/10/15	730SS+10 day
'32		ROD/RAP FOR SITE 12	190 days	Wed 11/4/15	Tue 7/26/16	
'33	<b>1</b>	Internal Draft ROD/RAP for Site 12	60 days	Wed 11/4/15	Tue 1/26/16	728FS-17 day
34	•	Draft ROD/RAP for Site 12	30 days	Wed 1/27/16	Tue 3/8/16	733
35		Agency Review of Draft ROD/RAP for Site 12	20 days	Wed 3/9/16	Tue 4/5/16	734
'36		Final ROD/RAP for Site 12	59 days	Wed 4/6/16	Mon 6/27/16	735
37		ROD/RAP for Site 12 Signature	21 days	Tue 6/28/16	Tue 7/26/16	736
'38		Public Notice of Signing ROD/RAP for Site 12	0 edays	Tue 7/26/16	Tue 7/26/16	737
'39		REMEDIAL DESIGN FOR SITE 12	209 days	Fri 5/6/16	Wed 2/22/17	
'40		Navy to award contract for Site 12 Remedial Design/Remedial Action	40 days	Fri 5/6/16	Thu 6/30/16	736FS-37 day
'41		Internal Draft RD for Site 12	60 days	Fri 7/1/16	Thu 9/22/16	740
42		Draft RD for Site 12	30 days	Fri 9/23/16	Thu 11/3/16	741
43		Agency Review of Draft RD for Site 12	20 days	Fri 11/4/16	Thu 12/1/16	742
'44		Final RD for Site 12	59 days	Fri 12/2/16	Wed 2/22/17	743
'45		REMEDIAL ACTION FOR SITE 12	537 days	Thu 2/23/17	Fri 3/15/19	
'46		REMEDIAL ACTION WORK PLAN (RAWP)	122 days	Thu 2/23/17	Fri 8/11/17	
'47		Internal Draft Site 12 RAWP	44 days	Thu 2/23/17	Tue 4/25/17	744
'48		Draft Site 12 RAWP	15 days		Tue 5/16/17	747
'49		Agency Review Draft Site 12 RAWP	20 days		Tue 6/13/17	748
'50		Final Site 12 RAWP	43 days		Fri 8/11/17	749
'51	(A)	REMEDIAL ACTION FIELD WORK	262 days		Tue 8/14/18	750
'52		REMEDIAL ACTION COMPLETION REPORT (RACR)	153 days		Fri 3/15/19	
'53		Internal Draft RACR for Site 12	44 days	Wed 8/15/18	Mon 10/15/18	751
		Draft RACR for Site 12	30 days	Tue 10/16/18	Mon 11/26/18	753
754	1	Agency Review of Site 12 Draft RACR	20 days	Tue 11/27/18	Mon 12/24/18	754
754		rigorio, ricinori e anti il antini il anti	,:			
754 755 756		Final RACR for Site 12	59 days	Tue 12/25/18	Fri 3/15/19	755

ID	Task Name	Duration	Start	Finish	Predecessors
758	Navy to award contract for RAD/CERCLA FS Addendum/SWDA Risk Assess for Site 12	40 days	Mon 2/6/17	Fri 3/31/17	610FS-40 days
759	Internal Draft RAD/CERCLA FS Addendum/SWDA Risk Assess for Site 12	66 days	Mon 4/3/17	Mon 7/3/17	758
760	Draft RAD/CERCLA FS Addendum/SWDA Risk Assess for Site	32 days	Tue 7/4/17	Wed 8/16/17	759
761	Agency Review Draft RAD/CERCLA FS Addendum/SWDA Risk Assess for Site 12	22 days	Thu 8/17/17	Fri 9/15/17	760
762	Final RAD/CERCLA FS Addendum/SWDA Risk Assess for Site 12	59 days	Mon 9/18/17	Thu 12/7/17	761
763	RADIOLOGICAL AND CERCLA PP/DRAFT RAP FOR SITE 12	233 days	Thu 7/6/17	Mon 5/28/18	
764	Navy to award RAD/CERCLA PP/Draft RAP for Site 12	40 days	Thu 7/6/17	Wed 8/30/17	760FS-30 days
765	Internal Draft RAD/CERCLA PP/Draft RAP for Site 12	60 days	Thu 8/31/17	Wed 11/22/17	764,760
766	Draft RAD/CERCLA PP/RAP for Site 12	30 days	Thu 11/23/17	Wed 1/3/18	765
767	Agency Review of Draft RAD/CERCLA PP/Draft RAP for Site 12	22 days	Thu 1/4/18	Fri 2/2/18	766
768	Final RAD/CERCLA PP/Draft RAP for Site 12	59 days	Mon 2/5/18	Thu 4/26/18	767
769	Public Notice of Final RAD/CERCLA PP/Draft RAP for Site 12	0 edays	Thu 4/26/18	Thu 4/26/18	768
770 770	Public Comment Period of Final RAD/CERCLA PP/Draft RAP for	* :	Fri 4/27/18	Mon 5/28/18	769
	Site 12	22 days			
771	Public Meeting for Final RAD/CERCLA PP/Draft RAP for Site 12	0 days	Thu 5/10/18	Thu 5/10/18	770SS+10 days
772	RADIOLOGICAL AND CERCLA ROD/RAP FOR SITE 12	191 days	Wed 4/4/18	Wed 12/26/18	
773	Internal Draft RAD/CERCLA ROD/RAP for Site 12	60 days	Wed 4/4/18	Tue 6/26/18	768FS-17 days
774	Draft RAD/CERCLA ROD/RAP for Site 12	30 days	Wed 6/27/18	Tue 8/7/18	773
775	Agency Review of Draft RAD/CERCLA ROD/RAP for Site 12	20 days	Wed 8/8/18	Tue 9/4/18	774
776	Final RAD/CERCLA ROD/RAP for Site 12	59 days	Wed 9/5/18	Mon 11/26/18	775
777	RAD/CERCLA ROD/RAP for Site 12 Signature	22 days	Tue 11/27/18	Wed 12/26/18	776
778	Public Notice of Signing RAD/CERCLA ROD/RAP for Site 12	0 edays	Wed 12/26/18	Wed 12/26/18	777
779	RADIOLOGICAL AND CERCLA REMEDIAL DESIGN FOR SITE 12	209 days	Fri 10/5/18	Wed 7/24/19	
780	Navy to award contract for Site 12 RAD/CERCLA Remedial Design/Remedial Action	40 days	Fri 10/5/18	Thu 11/29/18	776FS-37 days
781	Internal Draft RAD/CERCLA RD for Site 12	60 days	Fri 11/30/18	Thu 2/21/19	780
782	Draft RAD/CERCLA RD for Site 12	30 days	Fri 2/22/19	Thu 4/4/19	781
783	Agency Review of Draft RAD/CERCLA RD for Site 12	20 days	Fri 4/5/19	Thu 5/2/19	782
784	Final RAD/CERCLA RD for Site 12	59 days	Fri 5/3/19	Wed 7/24/19	783
785	RADIOLOGICAL AND CERCLA REMEDIAL ACTION FOR SITE 12	491 days	Thu 7/25/19	Thu 6/10/21	
786	RADIOLOGICAL AND CERCLA REMEDIAL ACTION WORK	100 days	Thu 7/25/19	Wed 12/11/19	
	PLAN (RAWP)	-			
787	Internal Draft Site 12 RAD/CERCLA RAWP	20 days	Thu 7/25/19	Wed 8/21/19	784
788	Draft Site 12 RAD/CERCLA RAWP	15 days	Thu 8/22/19	Wed 9/11/19	787
789	Agency Review Draft Site 12 RAD/CERCLA RAWP	22 days	Thu 9/12/19	Fri 10/11/19	788
790	Final Site 12 RAD/CERCLA RAWP	43 days	Mon 10/14/19	Wed 12/11/19	789
791	RADIOLOGICAL AND CERCLA REMEDIAL ACTION FIELD WORK AND FINAL STATUS SURVEY	262 days	Thu 12/12/19	Fri 12/11/20	790
792	RADIOLOGICAL AND CERCLA REMEDIAL ACTION COMPLETION REPORT (RACR) INCLUDING FSS REPORT	129 days	Mon 12/14/20	Thu 6/10/21	
793	Internal Draft RAD/CERCLA RACR/FSS Report for Site 12	20 days	Mon 12/14/20	Fri 1/8/21	791
794	Draft RAD/CERCLA RACR/FSS Report for Site 12	30 days	Mon 1/11/21	Fri 2/19/21	793
795	Agency Review of Site 12 Draft RAD/CERCLA RACR/FSS Report	20 days	Mon 2/22/21	Fri 3/19/21	794
796	Final RAD/CERCLA RACR/FSS Report for Site 12	59 days	Mon 3/22/21	Thu 6/10/21	795

ID	a	TI-N	Duration	Start	Finish	Predecessors
707	A6"84	Task Name	0044	7 7/4/00	35 4/40/4F	
797	1	SITE 21	3011 days		Mon 1/12/15	
798		REMEDIAL INVESTIGATION FOR SITE 21	952 days	Tue 7/1/03	Tue 2/20/07	
314	<b>√</b> \	TREATABILITY STUDY FOR SITE 21	1626 days	Wed 12/15/04	Mon 3/7/11	
337	<b>√</b>	FEASIBILITY STUDY FOR SITE 21	670 days	Tue 9/5/06	Tue 3/31/09	
352	V	SITE 21 SOIL GAS INVESTIGATION WORK PLAN	363 days	Sun 6/13/10	Wed 11/2/11	
361	<b>~</b>	SITE 21 SOIL GAS INVESTIGATION FIELD WORK / DATA ANALYSIS	131 edays	Wed 11/9/11	Mon 3/19/12	860FS+7 edays
362	<b>~</b>	SITE 21 SOIL GAS HHRA ADDENDUM	169 days	Tue 3/20/12	Sun 11/11/12	
371	<b>√</b>	PP/DRAFT RAP FOR SITE 21	485 days	Mon 1/4/10	Sun 11/13/11	
387	<b>√</b>	ROD/RAP FOR SITE 21	381 days	Mon 9/5/11	Tue 2/19/13	
901		LAND USE CONTROL REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN (LUC RD/RAWP) FOR SITE 21	380 days	Mon 4/30/12	Fri 10/11/13	
910	1	REMEDIAL ACTION COMPLETION REPORT (RACR)	180 days	Tue 5/6/14	Mon 1/12/15	
911	<b>√</b> ′.	Internal Draft RACR	52 days	Tue 5/6/14	Wed 7/16/14	
912	V	Draft RACR	35 days	Thu 7/17/14	Wed 9/3/14	911
913	<b>√</b>	Agency Review of Draft RACR	23 days	Thu 9/4/14	Mon 10/6/14	912
914	1	Final RACR	70 days	Tue 10/7/14	Mon 1/12/15	913

ID	0	Task Name	Duration	Start	Finish	Predecessors
915		SITE 24	3863 days	Tue 1/21/03	Fri 9/29/17	
916		PLUME DELINEATION INVESTIGATION	146 days	Mon 2/3/03	Wed 7/23/03	
923	Ž	REMEDIAL INVESTIGATION/FOCUSED FEASIBILITY STUDY FOR SITE 24	<del>.</del>	Sun 10/31/04	Thu 7/3/08	
950	<b>~</b>	PILOT STUDY FOR SITE 24	651 days	Tue 1/21/03	Thu 6/9/05	
966		EXPANDED TREATABILITY STUDY FOR SITE 24	2453 days	Fri 3/26/04	Fri 8/16/13	
1000		SITE 24 SOIL GAS INVESTIGATION	239 days	Fri 2/4/11	Wed 1/4/12	
1011		FOCUSED FEASIBILITY STUDY ADDENDUM REPORT	350 days	Sat 6/1/13	Fri 10/3/14	
1017		LOT 69 AND BUILDING 342 RADIOLOGICAL SURVEY - SEE BASEWIDE RADIOLOGICAL SURVEY AND REPORT PART II	0 days		Wed 11/4/15	2334FF
1018	,	PP/DRAFT RAP FOR SITE 24	-	Sat 12/29/12	Tue 3/24/15	
1019	<b>1</b>	Navy to award contract for Site 24 PP/ROD/Draft RAP	42 days		Tue 2/26/13	404656 27 4-1-
1020	<b>.</b> ✓,	Internal Draft PP/Draft RAP for Site 24	45 days		Wed 10/15/14	•
1021	<b>√</b>	Draft PP/Draft RAP for Site 24	47 days	Thu 10/16/14	Fri 12/19/14	1020
1022	ļ	Agency Review of Draft PP/Draft RAP for Site 24	28 days		Wed 1/28/15	1021,995
1023		Final PP/Draft RAP for Site 24	18 days	Thu 1/29/15	Mon 2/23/15	1022
1024		Public Notice of PP/Draft RAP for Site 24	0 edays	Mon 2/23/15	Mon 2/23/15	1023
025		Public Comment Period for PP/Draft RAP for Site 24	21 days	Tue 2/24/15	Tue 3/24/15	1024
026		Public Meeting for PP/Draft RAP for Site 24	0 edays			1025SS+12 days
027		ROD/RAP FOR SITE 24	410 days	Fri 2/7/14	Thu 9/3/15	
028	<b>\</b>	Navy to award contract for ROD/RAP for Site 24	44 days	Fri 2/7/14	Wed 4/9/14	
1029		Internal Draft ROD/RAP for Site 24	58 days	Mon 1/5/15	Wed 3/25/15	1021FS+10 days
030		Draft ROD/RAP for Site 24	30 days	Thu 3/26/15	Wed 5/6/15	1029
031		Agency Review of Draft ROD/RAP for Site 24	22 days	Thu 5/7/15	Fri 6/5/15	1030
032		Final ROD/RAP for Site 24	59 days		Thu 8/27/15	1031
033		ROD/RAP Signature for Site 24	5 days	Fri 8/28/15	Thu 9/3/15	1032
1034		Public Notice of Signing ROD/RAP for Site 24	0 edays	Thu 9/3/15	Thu 9/3/15	1033
1035		SOIL GAS DATA GAPS SAMPLING	614 days	Fri 8/29/14	Wed 1/4/17	
1036	33	Navy award contract for Soil Gas Data Gaps Sampling	66 days	Fri 8/29/14	Fri 11/28/14	
037		Work Plan Addendum to Monitoring Work Plan for Sites 6, 12, 21, 24	160 days		Fri 7/10/15	4000
1038		Internal Draft Site 24 Soil Gas Work Plan Addendum	44 days		Thu 1/29/15	1036
1039		Draft Site 24 Soil Gas Work Plan Addendum	32 days	Fri 1/30/15	Mon 3/16/15	1038
040		Agency Review of Draft Site 24 Soil Gas Work Plan Addendum Final Site 24 Soil Gas Work Plan Addendum	22 days 62 days	Tue 3/17/15  Thu 4/16/15	Wed 4/15/15 Fri 7/10/15	1039
042	ł	Soil Gas Sampling Field Work		Mon 7/13/15	Tue 7/12/16	1041
043	-	Soil Gas Data Gaps Summary Report	<del>.</del>	Wed 7/13/16	Wed 1/4/17	1041
044	ł	Internal Draft Site 24 Soil Gas Data Gaps Report		Wed 7/13/16	Thu 8/11/16	1042
045	-	Draft Site 24 Soil Gas Data Gaps Report	20 days		Thu 9/8/16	1044
1046	-	Agency Review of Draft Site 24 Soil Gas Data Gaps Report	22 days	Fri 9/9/16	Mon 10/10/16	1045
047		Final Site 24 Soil Gas Work Data Gaps Report	62 days		Wed 1/4/17	1046
1048	-	REMEDIAL DESIGN FOR SITE 24	292 days	Wed 3/4/15	Thu 4/14/16	10-10
049		Navy to award contract for Site 24 RD/RA	40 days	Wed 3/4/15	Tue 4/28/15	1032SS-68 days
050		Internal Draft RD for Site 24	60 days	Wed 8/5/15	Tue 10/27/15	49,1032SS+42 d
051	-	Draft RD for Site 24	•	Wed 10/28/15	Tue 12/22/15	1050
052		Agency Review of Draft RD for Site 24		Wed 10/23/15	Tue 1/19/16	1051
053	1	Final RD for Site 24	62 days		Thu 4/14/16	1052
054	-	REMEDIAL ACTION FOR SITE 24	399 days	Fri 2/19/16	Wed 8/30/17	1002
055	1	REMEDIAL ACTION WORK PLAN (RAWP)	152 days	Fri 2/19/16	Mon 9/19/16	
056	<del> </del>	Internal Draft Site 24 RAWP	40 days	Fri 2/19/16	Thu 4/14/16	1052FS+22 days
057	-	Draft Site 24 RAWP	30 days	Fri 4/15/16	Thu 4/14/16	10521 3+22 days
058	ļ	Agency Review Draft Site 24 RAWP	20 days	Fri 5/27/16	Thu 5/20/16 Thu 6/23/16	1057
059	<del> </del>	Final Site 24 RAWP	20 days 62 days	Fri 6/24/16	Mon 9/19/16	1057
060	1					1059
060	-	REMEDIAL ACTION COMPLETION REPORT (RACE)	105 days	Tue 9/20/16	Mon 2/13/17	1008
	-	REMEDIAL ACTION COMPLETION REPORT (RACR)	162 days	Tue 1/17/17	Wed 8/30/17	106050 00 4-
062		Internal Draft RACR for Site 24	40 days	Tue 1/17/17	Mon 3/13/17	1060FS-20 day

ID	0	Task Name	Duration	Start	Finish	Predecessors
1063		Draft RACR for Site 24	40 days	Tue 3/14/17	Mon 5/8/17	1062
1064		Agency Review of Site 24 Draft RACR	20 days	Tue 5/9/17	Mon 6/5/17	1063
1065		Final RACR for Site 24	62 days	Tue 6/6/17	Wed 8/30/17	1064
1066		SITE CLOSEOUT FOR SITE 24	30 edays	Wed 8/30/17	Fri 9/29/17	1065

ID	0	Fask Name	Duration	Start	Finish	Predecessors
1067		SITE 27	7964 days	Wed 5/7/03	Tue 11/15/33	
1068		FEASIBILITY STUDY FOR SITE 27	878 days	Wed 5/7/03	Tue 9/19/06	
1086	<b>√</b>	ADDITIONAL INVESTIGATION AT SITE 27	566 days	Fri 4/28/06	Fri 6/27/08	
1104	<b>√</b>	FEASIBILITY STUDY (REV 2)	554 days	Fri 6/27/08	Fri 8/13/10	
1114	<b>√</b>	SITE 27 BOUNDARY CHANGE LETTER	140 days	Sat 4/3/10	Fri 8/20/10	3193FF
1115	<b>√</b>	PP/DRAFT RAP FOR SITE 27	523 days	Wed 7/1/09	Sat 7/2/11	
1133	<b>√</b>	ROD/RAP FOR SITE 27	250 days	Mon 5/9/11	Fri 4/20/12	
1147	<b>√</b>	REMEDIAL DESIGN FOR SITE 27	331 days	Wed 2/15/12	Wed 5/22/13	
1163	<b>√</b>	REMEDIAL ACTION FOR SITE 27	619 days	Mon 7/30/12	Fri 12/12/14	
1164	<b>√</b>	Navy to award contract for Site 27 Remedial Action	44 days	Mon 7/30/12	Fri 9/28/12	
1165	<b>√</b>	REMEDIAL ACTION WORK PLAN (RAWP)	127 days	Wed 1/16/13	Fri 7/12/13	
1174	<b>√</b>	REMEDIATION FIELD WORK FOR SITE 27	429 days	Tue 7/9/13	Fri 11/29/13	1173FS-3 edays
1175	<b>√</b>	REMEDIAL ACTION COMPLETION REPORT (RACR)	168 days	Wed 4/23/14	Fri 12/12/14	
1180		LUC RD ADDENDUM FOR SITE 27	214 days	Tue 4/29/14	Fri 2/20/15	
1181	<b>√</b>	Navy to Award Contract for Site 27 LUC RD Addendum	44 days	Tue 4/29/14	Fri 6/27/14	
1182	<b>√</b>	Internal Draft Site 27 LUC RD Addendum	45 days	Mon 6/30/14	Fri 8/29/14	1181
1183	<b>√</b>	Draft Site 27 LUC RD Addendum	60 days	Mon 9/1/14	Fri 11/21/14	1182
1184		Agency Review Draft Site 27 LUC RD Addendum	28 days	Mon 11/24/14	Wed 12/31/14	1183
1185		Final Site 27 LUC RD Addendum	37 days	Thu 1/1/15	Fri 2/20/15	1184
1186		BATHYMETRY SURVEYS FOR SITE 27	4957 days	Mon 11/17/14	Tue 11/15/33	
1187	<b>√</b> ″	Year 1 Site 27 Bathymetry Survey	1 day	Mon 11/17/14	Mon 11/17/14	1174FS+250 days
1188		Year 5 Site 27 Bathymetry Survey	40 days	Mon 9/24/18	Fri 11/16/18	1187FS+1004 days
1189		Year 10 Site 27 Bathymetry Survey	40 days	Fri 9/22/23	Thu 11/16/23	1188FS+1264 days
1190		Year 15 Site 27 Bathymetry Survey	40 days	Thu 9/21/28	Wed 11/15/28	1189FS+1264 days
1191		Year 20 Site 27 Bathymetry Survey	40 days	Wed 9/21/33	Tue 11/15/33	1190FS+1264 days

ID			Duration	Start	Finish	Predecessors
	0	Task Name				
1192		SITE 28	2913 days	Thu 12/2/04	Sun 1/31/16	
1193		REMEDIAL INVESTIGATION FOR SITES 8, 28, 29	1130 days	Thu 12/2/04	Wed 4/1/09	
1217	<b>√</b>	NFA PP/DRAFT RAP FOR SITE 28	737 days	Thu 8/2/07	Sat 5/29/10	
1234	<b>√</b>	NFA ROD/RAP FOR SITE 28	167 days	Thu 4/1/10	Mon 11/22/10	
1248		SITE CLOSEOUT FOR SITE 28 (time allocated for transfer/tidelands trust exchange)	1896 edays	Mon 11/22/10	Sun 1/31/16	1247

ID	0	Task Name	Duration	Start	Finish	Predecessors
1249		SITE 29	3840 days	Tue 4/19/05	Fri 1/3/20	J
1250	<b>1</b> ✓	<b>INTERIM REMEDIAL INVESTIGATION FOR SITES 8 &amp; 29</b>	1029 days	Tue 4/19/05	Fri 3/27/09	
1274	<b>√</b>	SITE 29 (ON-OFF RAMPS) BOUNDARY CHANGE LETTER	278 edays	Wed 3/10/10	Mon 12/13/10	3201FF
1275	<b>~</b>	SITE 29 ARTIFACT BOUNDARY CHANGE TECHNICAL MEMORANDUM	118 edays	Thu 9/1/11	Wed 12/28/11	
1276		CALTRANS BRIDGE CONSTRUCTION PROJECT	2523 days	Mon 1/30/06	Wed 9/30/15	
1277	1	REMAINING CERCLA ITEMS (IF NECESSARY)	1135 days	Sat 8/1/15	Fri 12/6/19	
1278	1	SITES 8 & 29 RI ADDENDUM (IF NECESSARY)	175 days	Sat 8/1/15	Sun 4/3/16	
1290	1	FEASIBILITY STUDY FOR SITES 8 & 29 (IF NECESSARY)	250 days	Tue 2/9/16	Tue 1/24/17	
1304	1	PP/DRAFT RAP FOR SITES 8 & 29	229 days	Sat 12/31/16	Thu 11/16/17	
1321	1	ROD/RAP FOR SITES 8 & 29	229 days	Sat 9/23/17	Thu 8/9/18	
1336	1	REMEDIAL DESIGN FOR SITES 8 & 29 (IF NECESSARY)	196 days	Thu 5/17/18	Sun 2/17/19	
1348	1	REMEDIAL ACTION FOR SITES 8 & 29 (IF NECESSARY)	210 days	Sun 2/17/19	Fri 12/6/19	
1359	1	SITE CLOSEOUT FOR SITES 8 & 29	20 days	Mon 12/9/19	Fri 1/3/20	1358

ID	0	Task Name	Duration	Start	Finish	Predecessors
360		SITE 30	3303 days	Sun 3/16/03	Thu 10/22/15	
361		SITE 30 DATA AND FIELD ACTIVITY REPORT	108 days	Sun 3/16/03	Mon 7/28/03	
367	V	GROUNDWATER MONITORING FOR SITES 30/31	160 days	Thu 1/1/04	Thu 8/12/04	
380	<b>√</b>	REMEDIAL INVESTIGATION FOR SITE 30	425 days	Thu 7/8/04	Fri 2/17/06	
394	<b>√</b>	FEASIBILITY STUDY FOR SITE 30	357 days	Mon 7/4/05	Tue 11/14/06	
408	<b>√</b>	PP FOR SITE 30	575 days	Sun 8/6/06	Sat 10/18/08	
427	<b>√</b>	ROD/RAP FOR SITE 30	444 days	Wed 1/30/08	Tue 10/13/09	
441	~	SITE 30 LAND USE CONTROL REMEDIAL DESIGN/ REMEDIAL ACTION WORK PLAN (LUC RD/RAWP)	472 days	Wed 2/11/09	Thu 12/2/10	
452		SITE 30 RADIOLOGICAL SURVEY/FSS REPORT - SEE BASEWIDE RADIOLOGICAL SURVEY AND REPORT PART II	0 days	Thu 10/22/15	Thu 10/22/15	2319FF
453		MEMO TO FILE (to reference post-ROD radiological scanning work)	0 edays	Thu 10/22/15	Thu 10/22/15	1452

ID	0	Task Name	Duration	Start	Finish	Predecessors
454	.ea.	SITE 31	3117 days	Wed 6/11/03	Wed 5/20/15	
455	<b>∤</b> _/	ADDITIONAL INVESTIGATION FOR SITE 31	67 days	Wed 6/11/03	Fri 9/12/03	
467	🍏	GROUNDWATER MONITORING FOR SITES 30/31	155 days	Thu 1/1/04	Thu 8/5/04	
480	>	REMEDIAL INVESTIGATION FOR SITE 31	530 days	Thu 7/8/04	Fri 7/14/06	
503	>	FEASIBILITY STUDY FOR SITE 31	429 days	Wed 7/20/05	Tue 3/13/07	
517	>	PP FOR SITE 31	575 days	Sun 8/6/06	Sat 10/18/08	
536	<u>`</u>	ROD/RAP FOR SITE 31	449 days		Tue 10/13/09	
1549	<u></u>	REMEDIAL ACTION WORK PLAN AND REMEDIAL ACTION FOR	411 days	Wed 7/2/08	Thu 1/28/10	
349	<b>~</b>	SITE 31	411 days	vved 7/2/08	1 Nu 1/28/10	
562	1	REMEDIAL ACTION FOR SITE 31	1373 days	Mon 2/1/10	Wed 5/6/15	
563	1 🗸	Site 31 Phase I Remediation Field Work	116 days	Mon 2/1/10	Tue 7/13/10	
1565	<b>\</b>	Explanation of Significant Differences (ESD) for Site 31 ROD/RAP to include Site 33	251 days	Sat 6/5/10	Tue 5/24/11	
1576	<b>~</b>	Site 31 Phase 2 Remedial Action Field Work Plan (Including Site 33)	411 days	Sat 7/3/10	Mon 1/30/12	
587	<b>V</b>	Work Plan Addendum for Sites 31 and 33 Remedial Action	135 days	Mon 3/25/13	Fri 9/27/13	
1594		Site 31 Phase 2 Field Work	240 days	Mon 9/30/13	Fri 8/29/14	
1595	V.	Site 31 Final Status Survey (FSS) Field Work	6 edays	Tue 2/11/14	Mon 2/17/14	1593
596		Site 31 Final Status Survey (FSS) Report	366 days	Mon 12/9/13	Mon 5/4/15	
1597		Internal Draft Site 31 FSS Report	32 days	Mon 12/9/13	Tue 1/21/14	
1598	1	Draft Site 31 FSS Report	261 days	Wed 1/22/14	Wed 1/21/15	1597
1599	1	Agency Review Draft Site 31 FSS Report	22 days	Thu 1/22/15	Fri 2/20/15	1598
600	1	Final Site 31 FSS Report	51 days	Mon 2/23/15	Mon 5/4/15	1599
601		Remedial Action Completion Report (RACR) for Site 31	297 days	Tue 3/18/14	Wed 5/6/15	
602	1 🗸	Internal Draft RACR for Site 31	61 days	Tue 3/18/14	Tue 6/10/14	1594FS-200 day
603	1	Draft RACR for Site 31	156 days	Wed 6/11/14	Wed 1/14/15	1602
1604	†	Agency Review of Site 31 Draft RACR	25 days	Thu 1/15/15	Wed 2/18/15	1603
605	1	Final RACR for Site 31	55 days	Thu 2/19/15	Wed 5/6/15	1604
1606	†	SITE CLOSEOUT FOR SITE 31	10 days	Thu 5/7/15	Wed 5/20/15	1605

ID	0	Task Name	Duration	Start	Finish	Predecessors
607		SITE 32	2920 days	Wed 9/15/04	Sun 11/22/15	I.
608		REMEDIAL INVESTIGATION FOR SITE 32	1079 days	Wed 9/15/04	Thu 10/30/08	
630	<b>√</b>	PCB SOIL ABATEMENT T111 / SITE 32 REMOVAL ACTION (see PCB Program)	1070 days	Fri 8/8/08	Wed 7/13/11	2087SS
631	<b>√</b>	POST-CONSTRUCTION HHRA REVIEW	141 edays	Tue 4/13/10	Wed 9/1/10	
632	<b>√</b> \	PP/DRAFT RAP FOR SITE 32	149 days	Mon 3/21/11	Mon 10/17/11	
645		SITE 32 RADIOLOGICAL SURVEY/FSS REPORT - SEE BASEWIDE RADIOLOGICAL SURVEY AND REPORT - PART I	0 edays	Mon 3/30/15	Mon 3/30/15	2306FF
646		ROD/RAP FOR SITE 32	217 days	Wed 1/14/15	Thu 11/12/15	
647	ĺ	Navy to award contract for ROD/RAP for Site 32	40 days	Wed 1/14/15	Tue 3/10/15	1645FS-54 days
648	6	Internal Draft ROD/RAP for Site 32	40 days	Wed 3/11/15	Tue 5/5/15	1647
649	<del></del>	Draft ROD/RAP for Site 32	51 days	Wed 5/6/15	Wed 7/15/15	1648
650	6	. Agency Review of Draft ROD/RAP for Site 32	20 days	Thu 7/16/15	Wed 8/12/15	1649
651		Final ROD/RAP for Site 32	46 days	Thu 8/13/15	Thu 10/15/15	1650
652		ROD/RAP Signature for Site 32	20 days	Fri 10/16/15	Thu 11/12/15	1651
653		Public Notice of Signing ROD/RAP for Site 32	0 edays	Thu 11/12/15	Thu 11/12/15	1652
654		SITE CLOSEOUT FOR SITE 32	10 edays	Thu 11/12/15	Sun 11/22/15	1653

ID	,000s		Duration	Start	Finish	Predecessors
	0	Task Name				
1655		SITE 33	2849 days	Tue 12/2/03	Wed 10/29/14	
1656	<b>1 √</b>	REMEDIAL INVESTIGATION FOR SITE 33	1676 days	Tue 12/2/03	Fri 4/30/10	
1687	<b>~</b>	EXPLANATION OF SIGNIFICANT DIFFERENCES (ESD) FOR SITE 31 ROD/RAP TO INCLUDE SITE 33	353 edays	Sat 6/5/10	Tue 5/24/11	1566SS
1688	<b>√</b>	REMEDIAL ACTION FOR SITE 33	1128 days	Sat 7/3/10	Wed 10/29/14	
1689	<b>√</b>	Site 33 Phase 2 Remedial Action Field Work Plan	411 days	Sat 7/3/10	Mon 1/30/12	
1700	<b>√</b>	Work Plan Addendum for Sites 31 and 33 Remedial Action	135 days	Mon 3/25/13	Fri 9/27/13	
1701	<b>√</b>	Site 33 Field Work	653 days	Tue 1/31/12	Thu 7/31/14	1699
1702	<b>V</b>	Remedial Action Completion Report (RACR) for Site 33	619 days	Thu 6/14/12	Wed 10/29/14	
1711	<b>√</b>	SITE CLOSEOUT FOR SITE 33	10 days	Thu 10/16/14	Wed 10/29/14	1709

ID	10 <sup>20</sup> %		Duration	Start	Finish	Predecessors
	0	Task Name				
1711		PETROLEUM PROGRAM	<b>4505</b> days	Wed 6/26/02	Tue 7/30/19	
1712	<b>1 √</b>	SITE 4/19 - Closed	248 days	Wed 2/5/03	Wed 12/17/03	
1722	<b>√</b>	SITES 14/22 - Closed	842 days	Wed 6/26/02	Mon 7/18/05	
1739	<b>~</b>	SITE 15 - Closed	454 days	Tue 2/4/03	Tue 9/28/04	
1757	<b>~</b>	SITE 16 - Closed	228 days	Sat 8/2/03	Thu 6/17/04	
1766	<b>~</b>	SITE 20 - Closed	285 days	Tue 5/13/03	Thu 6/17/04	
1776	<b>√</b>	SITE 25 - Closed	2199 days	Wed 5/28/03	Fri 10/28/11	
1815	<b>√</b>	F2A/F2B - Closed	602 days	Thu 5/1/03	Mon 8/22/05	
1832	<b>V</b>	SITE YF2 - Closed	73 days	Tue 3/9/04	Thu 6/17/04	
1839		D1B (3rd Street) Closed	793 days	Thu 5/1/03	Sun 5/14/06	

ID	0	Task Name	Duration	Start	Finish	Predecessors
1852		SITE 6	3559 days	Tue 4/8/03	Wed 11/16/16	-
1853	<b>√</b>	POST-CONSTRUCTION REPORT FOR SITE 6	261 days	Tue 4/8/03	Thu 4/1/04	
860	<b>√</b>	Groundwater Monitoring for Site 6	339 edays	Wed 5/28/03	Sat 5/1/04	
1861	<b>√</b> \	Additional Investigation: Soil Vapor Sampling	45 edays	Mon 7/12/04	Thu 8/26/04	
1862	<b>√</b>	CLOSURE SUMMARY REPORT FOR SITE 6	181 days	Sat 3/26/05	Tue 12/6/05	
1869	V	Receipt of Water Board Letter of Non-Concurrence with NFA at Site	0 edays	Mon 5/15/06	Mon 5/15/06	
1870		Site 6 Groundwater Monitoring	210 edays	Thu 6/1/06	Thu 12/28/06	
1871		Prepare Revised Site 6 Boundary Paper	215 edays	Fri 6/23/06	Wed 1/24/07	
1872		Agency Review Revised Site 6 Boundary Paper	86 days	Wed 1/24/07	Thu 4/19/07	1871
873	V	Evaluate Site 6 Path Forward	60 edays	Thu 4/19/07	Mon 6/18/07	1872
1874		ADDITIONAL INVESTIGATION USTs 240	1436 days	Wed 3/16/11	Wed 9/14/16	
1875	<b>√</b> √	Navy to Award Contract for Additional Investigation of USTs 240	90 edays	Wed 3/16/11	Tue 6/14/11	
1876	~	Additional Investigation of USTs 240 Corrective Action Plan	302 days	Tue 7/19/11	Wed 9/12/12	
1884	_	(CAP) Work Plan Additional Investigation of USTs 240 Work Plan / Field Work	154 edays	Mon 11/12/12	Mon 4/15/13	883FS+61 eday
1885	Ž	Additional Investigation of USTs 240 Post-Construction	156 days	Fri 3/8/13	Mon 10/14/13	
1001	•	Summary Report (PCSR)	000 4	T 0/45/45	NA/ 0/4 4/4 C	252000
1894		Post-Corrective Action Groundwater Monitoring (1 year)	262 days	Tue 9/15/15	Wed 9/14/16	2530SS
1895		UST 240A and 240B CLOSURE	45 days	Thu 9/15/16	Wed 11/16/16	1894
1896		USTs 240 Request for Closure	25 days	Thu 9/15/16	Wed 10/19/16	213FF
1897		Receive Water Board Concurrence Letter for USTs 240 Closure	20 days	Thu 10/20/16	Wed 11/16/16	1896
1898		UST 248A, 248B, 248C, AND 248D CLOSURE	45 days	Thu 9/15/16	Wed 11/16/16	
1899		UST 248 Request for Closure	25 days	Thu 9/15/16	Wed 10/19/16	1896SS
1900		Receive Water Board Concurrence Letter for UST 248 Closure	20 days	Thu 10/20/16	Wed 11/16/16	1899
1901		USCG	607 days	Mon 4/3/17	Tue 7/30/19	
1902			60 days	Mon 4/3/17	Fri 6/23/17	
1903		USCG Additional Investigation Work Plan	118 days	Mon 6/26/17	Wed 12/6/17	
1904		Internal Draft USCG Additional Investigation Work Plan	40 days	Mon 6/26/17	Fri 8/18/17	1902
1905		Draft USCG Additional Investigation Work Plan	15 days	Mon 8/21/17	Fri 9/8/17	1904
1905		· ·		Mon 9/11/17	Fri 10/6/17	1904
1907		Agency Review Draft USCG Additional Investigation Work Plan	20 days			
1907		Final USCG Additional Investigation Work Plan USCG Additional Investigation Field Work and Sample Analysis	43 days 40 days	Mon 10/9/17 <b>Thu 12/7/17</b>	Wed 12/6/17 Wed 1/31/18	1906 1907
1909		Prepare USCG Additional Investigation Report	96 days	Thu 2/1/18	Thu 6/14/18	
1910		Internal Draft USCG Additional Investigation Report	20 days	Thu 2/1/18	Wed 2/28/18	1908
1911		Draft USCG Additional Investigation Report	15 days	Thu 3/1/18	Wed 3/21/18	1910
1912		Agency Review Draft USCG Additional Investigation Report	20 days	Thu 3/22/18	Wed 4/18/18	1911
1913		Final USCG Additional Investigation Report	41 days	Thu 4/19/18	Thu 6/14/18	1912
1914		USCG CAP Addendum	98 days	Fri 6/15/18	Tue 10/30/18	1912
1915		Internal Draft USCG CAP Addendum		Fri 6/15/18	Thu 7/12/18	1012
1916		Draft USCG CAP Addendum	20 days	Fri 7/13/18	Thu 8/2/18	1913 1915
			15 days			
1917		Agency Review Draft USCG CAP Addendum	20 days	Fri 8/3/18	Thu 8/30/18	1916
1918		Final USCG CAP Addendum	43 days	Fri 8/31/18	Tue 10/30/18	1917
1919		USCG CAP Addendum Implementation		Wed 10/31/18	Wed 2/27/19	1918
1920		USCG Post-Construction Summary Report	98 days	Thu 2/28/19	Mon 7/15/19	4040
1921		Internal Draft USCG Post-Construction Summary Report	20 days	Thu 2/28/19	Wed 3/27/19	1919
1922 1923		Draft USCG Post-Construction Summary Report Agency Review of Draft USCG Post-Construction Summary	15 days 20 days	Thu 3/28/19 Thu 4/18/19	Wed 4/17/19 Wed 5/15/19	1921 1922
		Report	-			
1924		Final USCG Post-Construction Summary Report	43 days	Thu 5/16/19	Mon 7/15/19	1923
1925		Site USCG Closure Received Water Board Concurrence Letter	11 days	Tue 7/16/19	Tue 7/30/19	1924
1926		YF3	1295 days	Tue 4/5/11	Mon 3/21/16	
1927	<b>√</b>		511 days	Tue 4/5/11	Tue 3/19/13	
1947		SCREENING-LEVEL ECOLOGICAL RISK ASSESSMENT (SLERA) FOR YF3	293 days	Wed 1/15/14	Fri 2/27/15	

ID	4		Duration	Start	Finish	Predecessors
	£"3.	Task Name				
1948		Navy to award contract for SLERA at YF3	0 days	Wed 1/15/14	Wed 1/15/14	
1949	] 🗸	YF3 SLERA Scoping Meeting with Agencies	0 edays	Wed 1/15/14	Wed 1/15/14	1948SS
1950	$\checkmark$	Internal Draft YF3 SLERA	73 days	Wed 1/15/14	Fri 4/25/14	1949
1951	<b>√</b>	Draft YF3 SLERA	60 days	Mon 4/28/14	Fri 7/18/14	1950
1952	<b>√</b>	Agency Review of Draft YF3 SLERA	21 days	Mon 7/21/14	Mon 8/18/14	1951
1953		Final YF3 SLERA	139 days	Tue 8/19/14	Fri 2/27/15	1952
1954	1	Additional Evaluation (if necessary)	261 days	Mon 3/2/15	Mon 2/29/16	1953
1955	1	Site YF3 Closure Received Water Board Concurrence Letter	15 days	Tue 3/1/16	Mon 3/21/16	1954

ID	o	Task Name	Duration	Start	Finish	Predecessors
956	<b></b>	USTs	3787 days	Sun 5/25/03	Tue 11/28/17	
957		Tanks 204A and 204B (YBI) Removal	86 days	Sun 5/25/03	Wed 9/24/03	
966	<b>√</b>	USTs 237/238 & 204 A-D Post-Construction Summary Report	130 days	Sun 11/23/03	Mon 5/24/04	
973	√°	Site USTs 237, 204A-D Closure Received Water Board Concurrence Letter	2227 edays	Sun 1/11/04	Mon 2/15/10	1972
974	<b>√</b>	USTs 140, 221, & 230 Post-Construction Summary Report	87 days	Sun 1/11/04	Tue 5/11/04	
981	<b>V</b> ***	Site USTs 140, 221, & 230 Closure Received Water Board Concurrence Letter	37 edays	Tue 5/11/04	Thu 6/17/04	1980
982	<b>√</b>	UST Site 227 Closure Summary Report	130 days	Sat 1/24/04	Fri 7/23/04	
992	<b>√</b>	Site 227 Closure Received Water Board Concurrence Letter	60 edays	Fri 7/23/04	Tue 9/21/04	1991
993	<b>√</b>	UST Site 180C Closure Summary Report	398 days	Sun 2/15/04	Mon 8/22/05	
000	<b>~</b>	Site UST 180C Closure Receive Water Board Concurrence Letter	50 edays	Mon 8/22/05	Tue 10/11/05	1999
001		UST 238 (Additional investigation pending Caltrans project completion)	112 days	Mon 6/26/17	Tue 11/28/17	1902

ID	,e=s.		Duration	Start	Finish	Predecessors
		Task Name				
2002	[	COMPLIANCE PROGRAM	4810 days	Mon 9/1/03	Thu 2/3/22	
2003		POLYCHLORINATED BIPHENYLS (PCBs)	2053 days	Mon 9/1/03	Wed 7/13/11	
2004	<b>√</b>	PCB EQUIPMENT	2053 days	Mon 9/1/03	Wed 7/13/11	
005	<b>√</b>	Historical Records Review Results	1 day	Tue 9/2/03	Tue 9/2/03	
006	<b>√</b>	Site Survey	31 days	Mon 9/1/03	Tue 10/14/03	
012	<b>√</b>	PCB Sampling and Analysis Plan (FOST Area)	109 days	Fri 12/5/03	Thu 5/6/04	
021	<b>√</b>	PCB Sampling (FOST Area)	79 days	Fri 4/30/04	Tue 8/17/04	
030	<b>√</b>	PCB Summary Report (FOST and FOSET Areas)	967 days	Mon 5/24/04	Fri 2/1/08	
048	<b>√</b>	PCB Sampling and Analysis Plan (FOSET Area)	100 days	Thu 12/29/05	Tue 5/16/06	
057	<b>√</b>	PCB Sampling (FOSET Area)	53 days	Tue 5/16/06	Sun 7/30/06	
066		PCB Work Plan	252 days	Tue 12/19/06	Wed 12/5/07	
075		PCB Field Work	109 days	Mon 12/17/07	Sun 5/18/08	
078	<b>√</b>	PCB Field Activity Report (FAR)	175 days	Sat 7/5/08	Mon 3/9/09	
086	<b>√</b>	PCB Soil Abatement T111/Site 32 Work Plan	223 days	Fri 8/8/08	Wed 6/17/09	
095	V1.	PCB Soil Abatement T111/Site 32 Field Work	284 edays	Wed 6/17/09	Sun 3/28/10	2094
2096	~	T111/Site 32 Post Construction Summary Report (PCSR) for Soil Removal	316 days	Tue 4/27/10	Wed 7/13/11	

ID	altha		Duration	Start	Finish	Predecessors
	£.9	Task Name				
2104	✓	RESIDENTIAL LEAD-BASED PAINT (LBP)	1908 days	Tue 11/18/03	Wed 3/9/11	
2105		YBI Residential Lead-Based Paint Reevaluation (2004)	134 days	Wed 3/24/04	Mon 9/27/04	
2114	<b>√</b>	YBI Lead-Based Paint in Soil (2005)	400 days	Tue 11/18/03	Mon 5/30/05	
2135	<b>√</b>	YBI Residences Lead-Based Paint Reevaluation (2006)	262 days	Tue 11/1/05	Wed 11/1/06	
2145	<b>√</b> \	TI Residences Lead-Based Paint Reevaluation (2008/2009)	685 days	Thu 7/24/08	Wed 3/9/11	

ID	0	Task Name	Duration	Start	Finish	Predecessors
2153		RADIOLOGICAL PROGRAM	4647 days	Sat 4/17/04	Thu 2/3/22	
2154	1	BUILDING 233 AND VICINITY	2818 days	Sat 4/17/04	Fri 1/30/15	
2155	<b>~</b>	Building 233 Asbestos Abatement and RAD Removal	731 days	Sat 4/17/04	Wed 1/31/07	
2178		Final Status Survey of Building 233	823 days	Sun 7/18/04	Mon 9/10/07	
2195		Building 233 Demolition Work Plan	138 days	Tue 1/12/10	Fri 7/23/10	
199	\ \ \	Building 233 Pre-Demolition Survey	104 edays	Fri 7/23/10	Thu 11/4/10	2198
200	V	Building 233 Demolition	31 edays	Mon 12/6/10	Thu 1/6/11	2199FS+14 edays
201	<b>~</b>	Building 233 Footprint Characterization, Remediation, and Final Status Survey Work Plan	410 days	Tue 6/29/10	Mon 1/23/12	·
212	<b>~</b>	Building 233 Field Work	560 days	Tue 2/7/12	Mon 3/31/14	2211FS+14 edays
213	<b>√</b>	Building 233 Characterization and Final Status Survey Plan	125 days	Mon 7/1/13	Mon 12/23/13	
222	. ✓	Building 233 Final Status Survey Field Work	60 days	Fri 1/3/14	Thu 3/27/14	2221FS+8 days
223	<b>√</b> ′	Building 233 Final Status Survey Report	141 days	Fri 3/28/14	Fri 10/10/14	
228		Building 233 Site Completion	0 edays	Fri 10/10/14	Fri 10/10/14	2227
229		Building 233 Recommendation of Unrestricted Radiological Release (RURR) Letter from State of California	80 days		Fri 1/30/15	2228
230	<b>√</b>	HISTORICAL RADIOLOGICAL ASSESSMENT (HRA)	423 days	Sat 7/3/04	Fri 2/10/06	
243	<b>~</b>	Further Radiological Investigation Areas (Site 12 SWDAs; Bldg 343, Bldg 344; and Sanitary Sewer and Drainage System at Bldg 233)	219 days	Mon 10/16/06	Fri 8/17/07	
253	<b>√</b>	Further Radiological Investigation Field Activities for Buildings 233, 343, 344	423 edays	Tue 9/4/07	Fri 10/31/08	
254	<b>\</b>	Summary Report of Further Radiological Investigation for Buildings 233, 343, 344	287 days	Thu 9/27/07	Fri 10/31/08	
279	<b>\</b>	HISTORICAL RADIOLOGICAL ASSESSMENT SUPPLEMENTAL TECHNICAL MEMORANDUM (HRASTM) FOR TI	613 days	Fri 2/24/12	Tue 7/1/14	
284		BASEWIDE RADIOLOGICAL SURVEYS AND REPORT - PART I (Includes Site 32, Site 12, Building 3, misc. utilities) - PART I	716 days	Sat 6/30/12 Sat 6/30/12	Mon 3/30/15 Sat 8/31/13	
2296	<b>\</b>	Basewide Radiological Survey Work Plan - Part I	305 days 173 days			2285
290 297	<b>~</b>	Basewide Radiological Surveys Field Work - Part I	288 days	Mon 9/2/13 Wed 1/29/14	Wed 4/30/14	2200
291 298		Site 12 and Selected Transportation Routes Scoping Survey Report (non-SWDA areas) Internal Draft Scoping Survey Report	200 days 88 days		<b>Fri 3/6/15</b> Fri 5/30/14	2296FS-66 day:
299	1	Draft Scoping Survey Report	142 days	Mon 6/2/14	Tue 12/16/14	2298
300	<b>~</b> ~	Agency Review Draft Scoping Survey Report	- :	Wed 12/17/14	Fri 1/16/15	2299
301	-20		23 days			
302		Final Scoping Survey Report Site 32, Building 3, Selected Storm and Wastewater Lines Radiological Survey Report - Part I	35 days <b>238 days</b>	Mon 1/19/15 <b>Thu 5/1/14</b>	Fri 3/6/15 <b>Mon 3/30/15</b>	2300
303	<b>~</b>	Internal Draft Radiological Survey Report/FSS Report	57 days	Thu 5/1/14	Fri 7/18/14	2296
304	<b>`</b>	Draft Radiological Survey Report/FSS Report	125 days	Mon 7/21/14	Fri 1/9/15	2303
305		Agency Review Draft Radiological Survey Report/FSS Report	21 days	Mon 1/12/15	Mon 2/9/15	2304
306		Final Radiological Survey Report/FSS Report	35 days	Tue 2/10/15	Mon 3/30/15	2305
2307		BASEWIDE RADIOLOGICAL SURVEY AND REPORT - PART II (includes Site 30, Lot 69, Building 342, Building 461, sewage	629 days	Fri 6/28/13	Thu 11/26/15	2000
200	ļ "	treatment plant, and msc. sewer lines)	75 6-1	Eri 6/00/40	Mod 0/44/40	
2308	<b>√</b>	Navy to award contract for Radiological Survey Part II	75 edays	Fri 6/28/13	Wed 9/11/13	
309		Radiological Survey Project Work Plan - Part II	331 days		Wed 3/4/15	2308
310		Internal Draft Radiological Survey Work Plan	200 days		Tue 9/2/14	2308
311		Draft Radiological Survey Work Plan	83 days	Wed 9/3/14	Fri 12/26/14	2310
312	ļ	Agency Review Draft Radiological Survey Work Plan	22 days		Tue 1/27/15	2311
313		Final Radiological Survey Work Plan	26 days	Wed 1/28/15	Wed 3/4/15	2312
314	ļ	Basewide Radiological Surveys Field Work - Part II	33 days	Mon 3/16/15	Wed 4/29/15	2313FS+7 days
		IR Site 30, Extended, Radiological Survey Report / Final Status Survey (FSS) Report	126 days	Thu 4/30/15	Thu 10/22/15	
	33	Internal Draft Radiological Survey Report/FSS Report	44 days	Thu 4/30/15	Tue 6/30/15	2314
316	4					
2315	]	Draft Radiological Survey Report/FSS Report	15 days	Wed 7/1/15	Tue 7/21/15	2316
316	]	Draft Radiological Survey Report/FSS Report Agency Review Draft Radiological Survey Report/FSS Report Final Radiological Survey Report/FSS Report	15 days 22 days 45 days	Wed 7/1/15 Wed 7/22/15 Fri 8/21/15	Tue 7/21/15 Thu 8/20/15 Thu 10/22/15	2316 2317 2318

ID	O Task	Name	Duration	Start	Finish	Predecessors
2320	,	Storm/Waste Water Lines near Building 233 Radiological Survey Report / Final Status Survey (FSS) Report	126 days	Thu 5/7/15	Thu 10/29/15	
2321		Internal Draft Radiological Survey Report/FSS Report	44 days	Thu 5/7/15	Tue 7/7/15	14,2316SS+5 da
2322		Draft Radiological Survey Report/FSS Report	15 days	Wed 7/8/15	Tue 7/28/15	2321
2323		Agency Review Draft Radiological Survey Report/FSS Report	22 days	Wed 7/29/15	Thu 8/27/15	2322
2324		Final Radiological Survey Report/FSS Report	45 days	Fri 8/28/15	Thu 10/29/15	2323
2325		Waste Water Lines (main) Radiological Survey Report / Final Status Survey (FSS) Report	126 days	Thu 5/14/15	Thu 11/5/15	
2326	33	Internal Draft Radiological Survey Report/FSS Report	44 days	Thu 5/14/15	Tue 7/14/15	14,2321SS+5 da
2327	1	Draft Radiological Survey Report/FSS Report	15 days	Wed 7/15/15	Tue 8/4/15	2326
2328		Agency Review Draft Radiological Survey Report/FSS Report	22 days	Wed 8/5/15	Thu 9/3/15	2327
2329	1	Final Radiological Survey Report/FSS Report	45 days	Fri 9/4/15	Thu 11/5/15	2328
2330		IR Site 24 (Lot 69, Bldg 342) Radiological Survey Report / Final Status Survey (FSS) Report	126 days	Thu 5/21/15	Thu 11/12/15	
2331		Internal Draft Radiological Survey Report/FSS Report	44 days	Thu 5/21/15	Tue 7/21/15	14,2326SS+5 da
2332		Draft Radiological Survey Report/FSS Report	15 days	Wed 7/22/15	Tue 8/11/15	2331
2333		Agency Review Draft Radiological Survey Report/FSS Report	22 days	Wed 8/12/15	Thu 9/10/15	2332
2334	•	Final Radiological Survey Report/FSS Report	45 days	Fri 9/11/15	Thu 11/12/15	2333
2335		IR Site 20 Radiological Survey Report Report	126 days	Thu 5/28/15	Thu 11/19/15	
2336	338	Internal Draft Radiological Survey Report	44 days	Thu 5/28/15	Tue 7/28/15	14,2331SS+5 da
2337		Draft Radiological Survey Report	15 days	Wed 7/29/15	Tue 8/18/15	2336
2338	]	Agency Review Draft Radiological Survey Report	22 days	Wed 8/19/15	Thu 9/17/15	2337
2339	]	Final Radiological Survey Report	45 days	Fri 9/18/15	Thu 11/19/15	2338
2340		Northeast Corner of TI Radiological Survey Report / Final Status Survey (FSS) Report	126 days	Thu 6/4/15	Thu 11/26/15	
2341		Internal Draft Radiological Survey Report/FSS Report	44 days	Thu 6/4/15	Tue 8/4/15	14,2336SS+5 da
2342		Draft Radiological Survey Report/FSS Report	15 days	Wed 8/5/15	Tue 8/25/15	2341
2343		Agency Review Draft Radiological Survey Report/FSS Report	22 days	Wed 8/26/15	Thu 9/24/15	2342
2344		Final Radiological Survey Report/FSS Report	45 days	Fri 9/25/15	Thu 11/26/15	2343
2345		RADIOLOGICAL SURVEY FOR BUILDING 570	299 days	Mon 12/14/20	Thu 2/3/22	
2346		Navy to award contract for Radiological Survey for Building 570	40 days	Mon 12/14/20	Fri 2/5/21	791
2347		Radiological Survey - Task Specific Work Plan for Building 570	90 edays	Fri 2/5/21	Thu 5/6/21	2346
2348		Radiological Survey Field Work for Building 570	45 edays	Thu 5/6/21	Sun 6/20/21	2347
2349		Radiological Survey Report / Final Status Survey (FSS) Report for Building 570	164 days	Sun 6/20/21	Thu 2/3/22	
2350	]	Internal Draft Radiological Survey Report/FSS Report	90 edays	Sun 6/20/21	Sat 9/18/21	2348
2351		Draft Radiological Scoping Survey Report/FSS Report	30 days	Mon 9/20/21	Fri 10/29/21	2350
2352		Agency Review Draft Radiological Scoping Survey Report/FSS Report	20 days	Mon 11/1/21	Fri 11/26/21	2351
2353	]	Final Radiological Scoping Survey Report/FSS Report	49 days	Mon 11/29/21	Thu 2/3/22	2352

2354 ASBESTOS-CONTAINING MATERIAL PROGRAM 685 days Thu 7/24/08 Wed 3/9/11	Task Name	Duration	Start	Finish	Predecessors
	✓ ASBESTOS-CONTAINING MATERIAL PROGRA	685 days	Thu 7/24/08	Wed 3/9/11	•
2355 A Basewide Asbestos Survey and Abatement (2009) 685 days Thu 7/24/08 Wed 3/9/11	Basewide Asbestos Survey and Abatement	) 685 days	Thu 7/24/08	Wed 3/9/11	

ID	0	Task Name	Duration	Start	Finish	Predecessors
2363	-	BASEWIDE TASKS	12037 days	Mon 9/1/03	Mon 10/18/49	
2364	1	GROUNDWATER MONITORING PROGRAM	3331 days	Thu 1/11/07	Thu 10/17/19	
2365	<b>-</b>	2006 Groundwater Status Report Site 12	269 days	Thu 1/11/07	Wed 1/23/08	
373	V		313 days	Sun 2/11/07	Thu 4/24/08	
2381			206 days	Mon 3/24/08	Tue 1/6/09	
2389	Ĭ	•	207 days	Mon 3/24/08	Wed 1/7/09	
2397	V		150 days	Sat 6/14/08	Mon 1/12/09	
2406	<b>~</b>	2008 Groundwater Status Report Sites 6 and 12	248 days	Thu 3/19/09	Tue 3/2/10	
414	<b>~</b>	2009 Annual Groundwater Status Report Sites 6 and 12	209 days	Mon 1/4/10	Thu 10/21/10	
422	1 🗸	2010 Sites 6 and 12 Quarterly Groundwater Monitoring	418 days	Sat 1/23/10	Wed 8/31/11	
436	1 🗸		514 days	Fri 10/1/10	Wed 9/19/12	
451	1 🗸		490 days	Tue 9/14/10	Mon 7/30/12	
473	1 🗸		378 days	Thu 2/23/12	Mon 8/5/13	
487	ľŽ		594 days	Sun 10/16/11	Thu 1/23/14	
509		Sites 6, 12, 21, 24 Monitoring Work Plan and Reporting	698 days	Mon 4/8/13	Wed 12/9/15	
510	ł		171 days	Mon 4/8/13	Tue 12/3/13	
	<b>\</b>					0517
518	<b>\</b>		30 edays	Tue 12/3/13	Thu 1/2/14	2517
519	<b>✓</b>		15 days	Mon 3/24/14	Fri 4/11/14	2518FS+60 eday
520		2013 Annual Monitoring Report for Sites 6, 12, 21, 24	205 days	Mon 5/12/14	Fri 2/20/15	
521	<b>~</b>		54 days	Mon 5/12/14	Thu 7/24/14	2519FS+30 eday
522	_ <	Draft Annual Monitoring Report for Sites 6, 12, 21, 24	16 days	Fri 7/25/14	Fri 8/15/14	2521
523	<b>√</b>	Agency review Draft Annual Monitoring Report for Sites 6, 12, 21, 24	21 days	Mon 8/18/14	Mon 9/15/14	2522
524		Final Annual Monitoring Report for Sites 6, 12, 21, 24	114 days	Tue 9/16/14	Fri 2/20/15	2523
525	✓	Groundwater Monitoring Event	10 edays	Mon 8/25/14	Thu 9/4/14	
526	33	Groundwater Monitoring Event	44 edays	Mon 3/16/15	Wed 4/29/15	
527		2014 Annual Monitoring Report for Sites 6, 12, 21, 24	139 days	Fri 5/29/15	Wed 12/9/15	
528		Internal Draft Annual Monitoring Report for Sites 6, 12, 21, 24	60 days	Fri 5/29/15	Thu 8/20/15	2526FS+30 eday
529		Draft Annual Monitoring Report for Sites 6, 12, 21, 24	17 days	Fri 8/21/15	Mon 9/14/15	2528
530		Agency review Draft Annual Monitoring Report for Sites 6, 12, 21, 24	20 days	Tue 9/15/15	Mon 10/12/15	2529
2531		Final Annual Monitoring Report for Sites 6, 12, 21, 24	42 days	Tue 10/13/15	Wed 12/9/15	2530
532		2015 ANNUAL BASEWIDE GROUNDWATER MONITORING	461 days	Mon 1/12/15	Mon 10/17/16	
533	338 v	Navy to Award Contract for Basewide Groundwater Monitoring	40 days	Mon 1/12/15	Fri 3/6/15	
534		Semi Annual Basewide Groundwater Monitoring Field Work	21 edays	Tue 9/1/15	Tue 9/22/15	
535	100	Semi Annual Basewide Groundwater Monitoring Field Work	21 edays	Tue 3/1/16	Tue 3/22/16	
536	1	Basewide Groundwater Monitoring Report	120 days	Tue 5/3/16	Mon 10/17/16	2535
537	1	Internal Draft Basewide Groundwater Monitoring Report	43 days	Tue 5/3/16	Thu 6/30/16	2535FS+30 day
538	1	Draft Basewide Groundwater Monitoring Report	15 days	Fri 7/1/16	Thu 7/21/16	2537
539		Agency Review Draft Basewide Groundwater Monitoring Report	20 days	Fri 7/22/16	Thu 8/18/16	2538
540	1	Final Basewide Groundwater Monitoring Report	42 days	Fri 8/19/16	Mon 10/17/16	2539
541	1	2016 ANNUAL BASEWIDE GROUNDWATER MONITORING	462 days	Mon 1/11/16	Tue 10/17/17	
550	†	2017 ANNUAL BASEWIDE GROUNDWATER MONITORING	458 days	Mon 1/16/17	Wed 10/17/18	
559	1	2018 ANNUAL BASEWIDE GROUNDWATER MONITORING	461 days	Thu 1/11/18	Thu 10/17/19	
568	1	BASEWIDE FIVE-YEAR REVIEWS	9296 days	Mon 3/3/14	Mon 10/18/49	
569			206 days	Mon 3/3/14	Mon 12/15/14	
575	<b>,                                    </b>	BASEWIDE 2019 FIVE-YEAR REVIEW	160 days	Mon 3/4/19	Fri 10/11/19	
576			40 days	Mon 3/4/19	Fri 4/26/19	
576 577	:53					2576
	ļ	Prepare Draft Five Year Review	20 days	Mon 4/29/19	Fri 5/24/19	2576
578	ļ	Navy Review Draft Five Year Review	10 days	Mon 5/27/19	Fri 6/7/19	2577
579	ļ	Prepare Draft Five Year Review	5 days	Mon 6/10/19	Fri 6/14/19	2578
580		Agency Review Draft Five Year Review	20 days	Mon 6/17/19	Fri 7/12/19	2579
581		Prepare Responses to Agency Comments and Final Five Year R	22 days	Mon 7/15/19	Tue 8/13/19	2580
582		Internal Final Five Year Review	23 days	Wed 8/14/19	Fri 9/13/19	2581
2583	1	Navy Review of Internal Final Five Year Review	10 days	Mon 9/16/19	Fri 9/27/19	2582

ID	0	Task Name	Duration	Start	Finish	Predecessors
2584	, e <sup>200</sup> 20.	Finalize Five Year Review	10 days	Mon 9/30/19	Fri 10/11/19	 2583
2585	1	BASEWIDE 2024 FIVE-YEAR REVIEW	160 days	Mon 3/4/24	Fri 10/11/24	
2595	1	BASEWIDE 2029 FIVE-YEAR REVIEW	160 days	Mon 3/5/29	Fri 10/12/29	
2605	1	BASEWIDE 2034 FIVE-YEAR REVIEW	160 days	Fri 3/3/34	Thu 10/12/34	
2615	1	BASEWIDE 2039 FIVE-YEAR REVIEW	160 days	Thu 3/3/39	Wed 10/12/39	
2625	1	BASEWIDE 2044 FIVE-YEAR REVIEW	160 days	Thu 3/3/44	Wed 10/12/44	
2635	1	BASEWIDE 2049 FIVE-YEAR REVIEW	164 days	Wed 3/3/49	Mon 10/18/49	
645	1	BASEWIDE LAND USE CONTROL (LUC) INSPECTIONS	2415 days	Fri 3/4/11	Thu 6/4/20	
2646	<b>√</b>	2011 Basewide LUC Inspections	74 days	Fri 3/4/11	Wed 6/15/11	
2647	<b>√</b>	2012 Basewide LUC Inspections	90 days	Wed 1/25/12	Tue 5/29/12	
2648	] ✓	2013 Basewide LUC Inspections	83 days	Mon 1/14/13	Wed 5/8/13	
2649	] ✓	2014 Basewide LUC Inspections	132 days	Thu 2/20/14	Fri 8/22/14	
2650	1	2015 Basewide LUC Inspections	102 days	Tue 1/13/15	Wed 6/3/15	
2651	1	2016 Basewide LUC Inspections	102 days	Mon 1/11/16	Tue 5/31/16	
2652	1	2017 Basewide LUC Inspections	102 days	Mon 1/9/17	Tue 5/30/17	
2653	1	2018 Basewide LUC Inspections	102 days	Mon 1/8/18	Tue 5/29/18	
2654		2019 Basewide LUC Inspections	102 days	Tue 1/15/19	Wed 6/5/19	
2655	1	2020 Basewide LUC Inspections	102 days	Wed 1/15/20	Thu 6/4/20	

ID	0	Task Name	Duration	Start	Finish	Predecessors
2656		REGULATORY INTERACTION SUPPORT	2451 days	Sun 4/8/07	Mon 8/29/16	
2657	1	SITE MANAGEMENT PLAN (ANNUAL UPDATES)	2451 days	Sun 4/8/07	Mon 8/29/16	
2658	$\checkmark$	Site Management Plan (2007 Annual Update)	184 days	Sun 4/8/07	Fri 12/21/07	
2669	<b>V</b>	Site Management Plan (2008 Annual Update)	147 days	Tue 5/6/08	Thu 11/27/08	
680	<b>√</b>	Site Management Plan (2009 Annual Update)	365 days	Tue 5/6/08	Tue 9/29/09	
690		Site Management Plan (2010 Annual Update)	194 days	Tue 2/2/10	Fri 10/29/10	
699	<b>V</b>	Site Management Plan (2011 Annual Update)	222 days	Sun 2/20/11	Wed 12/28/11	
708	V	Site Management Plan (2012 Annual Update)	146 days	Mon 2/20/12	Tue 9/11/12	
717	į		218 days		Fri 12/20/13	
726		Site Management Plan (2014 Annual Update)	169 days	Thu 5/1/14	Tue 12/23/14	
731		Site Management Plan (2015 Annual Update)	136 days	Fri 2/20/15	Fri 8/28/15	
732			24 days	Fri 2/20/15	Wed 3/25/15	
733	1	Draft Site Management Plan	32 days	Thu 3/26/15	Fri 5/8/15	2732
734	1	Agency Review Draft Site Management Plan	22 days	Mon 5/11/15	Tue 6/9/15	2733
735	1	Final Site Management Plan	58 days	Wed 6/10/15	Fri 8/28/15	2734
736	<del>-</del>	Site Management Plan (2016 Annual Update)	136 days	Mon 2/22/16	Mon 8/29/16	2701
741	<del> </del>	BCT MEETINGS/MINUTES	2071 days	Tue 1/8/08	Wed 12/16/15	
741 742	ļ		<del>-</del>	Tue 1/8/08	ļ	
742 755	<b>-</b>	BCT Meetings 2008	237 days		Wed 12/3/08	
	<b> </b>	BCT Meetings 2010	235 days	Wed 1/7/09	Wed 12/2/09	
768	<b>\</b>	BCT Meetings 2010	235 days	Wed 1/6/10	Wed 12/1/10	
781	<b>\</b>	BCT Meetings 2011	240 days	Wed 1/5/11	Wed 12/7/11	
794	. 🗸	BCT Meetings 2012	240 days	Wed 1/4/12	Wed 12/5/12	
807	. 🗸	<del>-</del>	245 days	Wed 1/2/13	Wed 12/11/13	
820	<b>」 ✓</b>	BCT Meetings 2014	235 days	Wed 1/15/14	Wed 12/10/14	
832		BCT Meetings 2015	235 days	Wed 1/21/15	Wed 12/16/15	
833			0 edays	Wed 1/21/15	Wed 1/21/15	
834			0 edays	Wed 2/18/15	Wed 2/18/15	
835	33	BCT Meeting #3	0 edays	Wed 3/18/15	Wed 3/18/15	
836		BCT Meeting #4	0 edays	Wed 4/22/15	Wed 4/22/15	
837		BCT Meeting #5	0 edays	Wed 5/20/15	Wed 5/20/15	
838	199	BCT Meeting #6	0 edays	Wed 6/17/15	Wed 6/17/15	
839	199	BCT Meeting #7	0 edays	Wed 7/15/15	Wed 7/15/15	
840		BCT Meeting #8	0 edays	Wed 8/19/15	Wed 8/19/15	
841		BCT Meeting #9	0 edays	Wed 9/16/15	Wed 9/16/15	
842		BCT Meeting #10		Wed 10/21/15	Wed 10/21/15	
843		BCT Meeting #11	0 edays	Wed 11/18/15	Wed 11/18/15	
844				Wed 12/16/15	Wed 12/16/15	
845		COMMUNITY RELATIONS PROGRAM	2258 days	Thu 4/19/07	Tue 12/15/15	
846	\ \	COMMUNITY RELATIONS PLAN (2007/2008)	221 days	Thu 7/26/07	Fri 5/30/08	
857	Ĭ	COMMUNITY RELATIONS PLAN UPDATE (2014)	330 days	Mon 5/13/13	Fri 8/15/14	
863	· · · · · ·	RAB MEETINGS/MINUTES	1780 days	Tue 2/17/09	Tue 12/15/15	
864	~	RAB Meetings/Minutes 2009	216 days	Tue 2/17/09	Tue 12/15/09	
871	V	RAB Meetings/Minutes 2010	220 days	Tue 2/16/10	Tue 12/21/10	
878	V	RAB Meetings/Minutes 2011	215 days	Tue 2/15/11	Tue 12/21/10	
885	\ \ \	RAB Meetings/Minutes 2012	210 days	Tue 2/13/11 Tue 2/21/12	Tue 12/13/11	
891	<b>-</b>	RAB Meetings/Minutes 2012  RAB Meetings/Minutes 2013	210 days	Tue 2/2 1/12 Tue 2/19/13	Wed 12/11/13	
898		_				
905	. ✓	RAB Meetings/Minutes 2014	210 days	Tue 2/18/14	Tue 12/9/14	
	20000	RAB Meetings/Minutes 2015	215 days	Tue 2/17/15	Tue 12/15/15	
906		RAB Meeting #175	0 edays	Tue 2/17/15	Tue 2/17/15	
907			0 edays	Tue 4/21/15	Tue 4/21/15	
908			0 edays	Tue 6/16/15	Tue 6/16/15	
909			0 edays	Tue 8/18/15	Tue 8/18/15	
910			0 edays	Tue 10/20/15	Tue 10/20/15	
911		RAB Meeting #180	0 edays	Tue 12/15/15	Tue 12/15/15	
912	<b>√</b>	TI TIMES	1379 days	Thu 4/19/07	Tue 7/31/12	
913		TI Times #13 Spring/Summer 2007	92 days	Thu 4/19/07	Mon 8/27/07	

ID	al25s.		Duration	Start	Finish	Predecessors
	€.9	Task Name				
2921		TI Times #14 Summer 2008	135 days	Fri 1/18/08	Fri 7/25/08	
2929	] ✓	TI Times #15 Winter 2009	136 days	Sun 11/2/08	Tue 5/12/09	
2937	<b>√</b>	TI Times #16 Spring 2010	132 days	Wed 10/21/09	Fri 4/23/10	
2945	<b>√</b>	TI Times #17 Summer 2011	263 days	Sat 7/17/10	Wed 7/20/11	
2953	<b>√</b>	TI Times #18 Summer 2011	205 days	Tue 10/18/11	Tue 7/31/12	

ID	0	Task Name	Duration	Start	Finish	Predecesso
961	-	TRANSFER RELATED	3013 days	Mon 9/1/03	Tue 3/17/15	
962		SEBS/FOST EXECUTION SCHEDULE	980 days	Mon 9/1/03	Fri 6/1/07	
06	<b>√</b>	FINAL SEBS	368 days	Fri 2/27/04	Fri 7/22/05	
27	<b>√</b>	TREASURE ISLAND FOST (FOST 1)	527 days	Fri 2/27/04	Thu 3/2/06	
41	<b>√</b>	YERBA BUENA ISLAND FOST (FOST 2)	613 days	Tue 11/18/03	Wed 3/22/06	
86	<b>√</b>	SITE 27 BOUNDARY CHANGE TECHNICAL MEMORANDUM	99 days	Sat 4/3/10	Fri 8/20/10	
94	<b>√</b>	SITE 29 BOUNDARY CHANGE TECHNICAL MEMORANDUM	196 days	Wed 3/24/10	Wed 12/22/10	
02	~	SITE 29 ARTIFACTS BOUNDARY CHANGE TECHNICAL MEMORANDUM	70 days	Wed 9/21/11	Wed 12/28/11	
10	<b>√</b>	SITE 24 BOUNDARY CHANGE LETTER - EXPANDED BOUNDARY	1 day	Mon 12/9/13	Mon 12/9/13	
11	V	YERBA BUENA ISLAND FOST 3	526 days	Mon 1/11/10	Tue 1/17/12	
32		FOSTs 1 AND 2 ADDENDUM (CANCELLED)	308 days	Mon 2/14/11	Wed 4/18/12	
44	<b>√</b> ′	FOST 4	92 days	Wed 6/25/14	Thu 10/30/14	
50		2014 FINDING OF SUITABILITY TO LEASE (FOSL)	168 days	Fri 7/25/14	Tue 3/17/15	
51		Internal Draft FOSL	78 days	Fri 7/25/14	Tue 11/11/14	
52	1	Draft FOSL	53 days	Wed 11/12/14	Fri 1/23/15	3251
53		Agency Review of Draft FOSL	22 days	Mon 1/26/15	Tue 2/24/15	3252
54	1	Final FOSL	15 days	Wed 2/25/15	Tue 3/17/15	3253
55	1	Sign and Distribute Final FOSL	0 days	Tue 3/17/15	Tue 3/17/15	3254
56	1	COVENANT TO RESTRICT USE OF PROPERTY (CRUP)	81 days	Wed 9/10/14	Wed 12/31/14	
257	33	CRUPs - Initial TI and YBI Conveyance	81 days	Wed 9/10/14	Wed 12/31/14	3246



This document presents responses to regulatory agency comments on the "Draft 2014 Site Management Plan, Naval Station Treasure Island, San Francisco, California," dated September 2014. The comments addressed below were received from Ms. Remedios Sunga, California Environmental Protection Agency's Department of Toxic Substances Control Board (DTSC) on October 21, 2014; and Ms. Myriam Zech of the San Francisco Bay Regional Water Quality Control Board (Water Board) on November 18, 2014.

RESPON	SES TO DTSC COMMENTS	
NO.	COMMENT	RESPONSE
Specific 1	Petroleum Sites. DTSC defers the commenting on sections of the Site Management Plan (SMP) related to petroleum sites to the Water Board.	Comment noted.
Specific 2	CERCLA Program Status, Page 1, and Table 1 for Sites 8, 9 and 29. Please clarify that construction of the Bay Bridge East Span has been completed, and that CERCLA activities at Sites 8, 11 and 29 are pending demolition of the old bridge.	The text for Sites 8, 11, and 29 within the embedded table on Page 1 was revised in the Final SMP to: "On Hold Pending Completion of San Francisco-Oakland Bay Bridge (Bay Bridge) Reconstruction Activities by California Department of Transportation (Caltrans)."
		The text for Sites 8, 11, and 29 within Table 1 and Appendix A was revised in the Final SMP to: "Navy will resume work on the sites in consultation with Caltrans, following demolition of the old eastern span, completion of the freeway access ramps and the demobilization from staging/laydown areas."
Specific 3	Section 2.0-Schedule Assumptions, Page 3. First Paragraph: Please discuss the work of the RAB technical focus group and identify the other public groups that provide support to the BCT.	The second and third sentences of the first paragraph were removed to simplify the paragraph and to continue to focus the section on the schedule assumptions agreed upon by the Base Realignment and Closure Cleanup Team.
Specific 4	Table 3: Summary of Forthcoming CERCLA Documents and Phases, Page 13. Site 21: "LUC RA" with a date complete of 11/24/14 should be changed to "RACR."	The entry for Land Use Control (LUC) Remedial Design (RD)/Remedial Action Work Plan (RAWP) was removed from the table, and the LUC Remedial Action (RA) was renamed as "RD/RA" in the Final SMP for consistency with other sites listed in the table. As noted in the footnote for Table 3, the dates listed for the RD/RA phase of the Comprehensive Environmental Response, Compensation, and Recovery Act (CERCLA) process are based on the date of the final Remedial Action Completion Report (RACR).

RESPON	ISES TO DTSC COMMENTS	
NO.	COMMENT	RESPONSE
Specific 5	Figure 11-Environmental Restriction Areas and Transfer and EBS Parcels.  5.1 Per DTSC's August 29, 2013 comments on the 2013 SMP, the areas requiring restriction for CERCLA constituents should include Officers Quarters 1 through 7 and 10 located in the YF2 site shown in Figure 3. DTSC and the Navy have negotiated a Covenant to Restrict Use of Property (CRUP) for the Officer's Quarters due to the presence of lead in soil under pavement and buildings. The CRUP was finalized in 2012 ready to be signed as part of the property transfer documents for the initial conveyance of YBI properties at that time. Attached are figures that were attached in the DTSC comments on the 2013 SMP, showing areas that are addressed by the YBI CRUP.	Figure 11 was revised in the Final SMP to include the LUC boundary for the Quarters 1 through 7 and 10 areas on Yerba Buena Island (YBI).
	<b>5.2.</b> Figure 11 only shows Officer's Quarters 1 through 6. Please add Officer's Quarter 7 in the figure. Figure 8 shows the 8 Officer's Quarters requiring restrictions with the same UST numbering of 1 through 7 and 10.	The building and label for Quarters 7 were added to Figures 2, 3, 9, and 11 in the Final SMP.
	<b>5.3.</b> Site 27 should also be labeled as restriction area for the buried lead shots.	Figure 11 was modified in the Final SMP to show the restricted area of Site 27 as an "area requiring restriction for lead shot."

RESPONSES TO DTSC COMMENTS		
NO.	COMMENT	RESPONSE
Specific 5 (Cont'd)	<b>5.4</b> Since residential use at other sites (Sites 27 and 28) will also be restricted, please delete the red hatched area in the Legend and make Site 21 restricted area to CERCLA area requiring restrictions.	The legend of Figure 11 was modified in the Final SMP to simply define the residential restriction definition as "Area Requiring Restriction for Residential Use," as this hatching will be used for both Site 21 and a portion of Site 25.
		The figure will show restrictions that are part of the official CERCLA remedy for the sites. The Site 27 Record of Decision/Remedial Action Plan (ROD/RAP) indicated a human health risk assessment was not conducted for Site 27 because no pathway exists for exposure of humans to lead, lead shot, or polycyclic aromatic hydrocarbons in sediment; thus, no residential restriction was required. For Site 28, and as noted in Appendix A, a no further action ROD was signed and no LUCs were included as part of the remedy; however, use of the site will be restricted due to placement in the Tidelands Trust. The Site 28 ROD further explains that once Site 28 is brought into Tidelands Trust jurisdiction, it cannot be removed from the Trust, and land use restrictions (including residential use) will remain in perpetuity. See also the Navy's response to Water Board Specific Comment 6.

RESPON	RESPONSES TO WATER BOARD COMMENTS		
NO.	COMMENT	RESPONSE	
Specific 1	<b>p.2, Introduction, last paragraph:</b> Please amend the description for Figure 11 to make it clear that environmental restrictions shown are for areas that are already FOSTed, or ready for transfer and part of the current FOST 4.	Figure 11 of the Final SMP was revised to add the following note: "The basis for each of the restrictions shown is presented in Findings of Suitability to Transfer [FOSTs] 1, 2, 3, or 4 or the LUC RDs for Sites 21 and 30. Additional restrictions may be warranted in the future for property that has not yet been determined suitable for transfer."	
Specific 2	<b>Figure 11:</b> Restrictions will be placed in the deeds for various parcels because of residual petroleum hydrocarbons left in place at or below certain depths. Please show the restrictions' prescribed depths:	The purpose of Figure 11 is to show the transfer parcels and locations of restrictions. Details regarding the depth restrictions are in the related FOST(s) or LUC RDs for the property.	
	• at or below 0.5 feet bgs for portions of Parcel B (Inactive Fuel Line D5),		
	• at or below 5 feet bgs for portions of Parcel A (UST 180C) and Parcel E, (Inactive Fuel Line D1B);		
	• at or below 5.5 feet bgs for portions of Parcel B (Inactive Fuel Line F2B);		
	• at or below 6.5 feet bgs for portions of Parcel E (Inactive Fuel Line F2A);		
	• at or below 7 feet bgs for portions of Parcel A (Causeway pipeline) and Parcel F (Petroleum Site 14/22);		
	• at or below 8 feet bgs for portions of Parcel H (UST 227).		
Specific 3	<b>Figure 12:</b> If Site 28 is the only site to be included in the Tidelands Trust, please state this in the legend instead of "Property planned for the tidelands trust is not shown for illustrative clarity." If other sites are to be included in the Tidelands Trust, please show this in an additional figure.	Land in addition to Site 28 is planned for inclusion in the Tidelands Trust as outlined in a draft trust exchange agreement. Upon signature and finalization of the trust exchange agreement, references and figure revisions will be updated as appropriate.	

RESPON	RESPONSES TO WATER BOARD COMMENTS		
NO.	COMMENT	RESPONSE	
Specific 4	p. A-12, Site 11: Please indicate the steps the Navy intends to take in order to address the petroleum-contaminated sands and the possible petroleum contamination of the groundwater and discharge to the Bay as a result.	The petroleum contamination is likely due to former underground storage tanks (USTs) and pipelines in the northwest portion of Site 11. Although known remaining petroleum-impacted soil was left in place along margins of the total petroleum hydrocarbon (TPH) excavations, the related UST sites received no further action concurrence from the Water Board in 2004. The complete site conditions were memorialized in the interim Site 11 Remedial Investigation (RI) report issued January 2010. Caltrans, the current property owner, continues to operate on YBI as it completes demolition of the old eastern span of the Bay Bridge, as well as construction of new on and off ramps from the Bay Bridge and YBI. The Navy plans to continue investigation of the site in consultation with Caltrans, after all active uses of the property are completed. An RI addendum will be conducted to identify any changed conditions since property transfer to Caltrans.	
Specific 5	p. A-12, Site 11: Bridge construction appears to be complete. Can you update the statements about tasks pending bridge construction? For example, instead of saying "The Navy will discuss site closeout with Caltrans when bridge construction work on the site is complete" in the last paragraph, explain that the Navy will be able to discuss issues that pertain to the Site now that bridge construction is complete.	Please see the Navy's response to DTSC Specific Comment 2.	
Specific 6	Site 28, p. 26: You state that "Although Site 28 has a NFA ROD and no LUCs will be included as part of the CERCLA remedy, use of the property will be restricted because it has been included in the Tidelands Trust." Can you describe the California Tidelands Trust, as well as explain the 4-year timeframe allocated for transfer/tidelands trust exchange as mentioned on p. B-13? Please also revise the estimated date for closure.	The following text will be added to Appendix A for Site 28: "The Tidelands Trust is overseen by the California State Lands Commission. The Treasure Island Tidelands Trust Exchange Act of 2004 proposed an exchange of lands under which non-Trust lands on YBI would be brought into the Trust, and Trust lands on TI would be released from the Trust. Upon inclusion in the Tidelands Trust, Site 28 lands would be limited to uses that attract people to the waterfront, promote public recreation, protect habitat, and/or	

NO.	COMMENT	RESPONSE
000100000000000000000000000000000000000		preserve open space."
		The 4-year timeframe shown in Appendix B for Site 28 is the amoun of time since the no action ROD was signed and the date of the Final FOST 4. However, inclusion of the land in the Tidelands Trust Exchange is expected within 1 year of transfer. Transfer of Site 28 from the Navy to the City of San Francisco is anticipated in late 2014/early 2015.
Specific 7	p. A-36, Site 33: Please change: "The Navy is currently finalizing a RACR for Site 33" to "The Navy has finalized a RACR for Site 33."	The Final SMP was updated to indicate the date of the Final RACR for Site 33.

	ESPONSES TO WATER BOARD COMMENTS		
NO.	COMMENT	RESPONSE	
Specific 8	p. A-38, Site 14/22: Please explain how/why Site 14 and Site 22 are being addressed together. Should the Site also include inactive fuel line D1A?	The following sentences will replace the first sentence of the site description of Site 14/22 in Appendix A: "Site 14/22 represents the combination of two adjacent petroleum sites located in the northeast portion of TI. Site 14 (New Fuel Farm) was established in 1943 as the primary fuel storage and distribution center at NAVSTA TI. Shortly thereafter (in approximately 1946), the Navy centralized the distribution of automotive fuel with the construction of the Naval Exchange Service Station (referred to as Site 22)."	
		The portion of fuel line D1A that extended into Site 14/22 was addressed and discussed in Appendix A of the closure report for Site 14/22.	
Specific 9	p. A-49, UST Sites: "Investigation of UST 238 on YBI is on hold until bridge construction is complete." Bridge construction now appears complete. Are any activities related to bridge construction, that are preventing the investigation of UST 238? Please also correct the schedule on p. B-22, Appendix B, Item 2003, "additional investigation of UST 238 pending Caltrans project completion" if appropriate.	The Navy plans to discuss the path forward for the UST 238 site after Caltrans completes all bridge demolition and construction activities. Based on funding priorities, the Navy is planning to contract the investigation of this site in Fiscal Year 2017.	
Specific 10	p. A-50, Inactive Fuel Pipeline Sites. "The Navy expects to pursue closure of YF3 by meeting the general and medium-specific criteria of the Water Board's Low-Threat Case Closure policy." Please note that the Water Board has already determined that YF3 does not meet the Low-Threat UST Case Closure Policy, and that we are awaiting follow-up from the Navy regarding data gap investigations.	The subject sentence for Site YF3 was revised in the Final SMP to the following: "The Navy plans to collect additional data at Site YF3 in response to Water Board comments received on the SLERA. The new data will be used to support closure of YF3 by meeting the general and medium-specific criteria of the Water Board's Low-Threat Case Closure policy."	
Specific 11	p. A-51, Inactive Fuel Pipeline Sites. "USCG Investigations are postponed until after Caltrans has completed construction in the area." Again, is there anything currently preventing investigation of the USCG site now that bridge construction is complete? If so, please include a brief explanation/summary.	The Navy plans to discuss the path forward for the USCG site after Caltrans completes all bridge demolition and construction activities. Based on funding priorities, the Navy is planning to contract the investigation of this site in Fiscal Year 2017.	

RESPONSES TO WATER BOARD COMMENTS		
NO.	COMMENT	RESPONSE
Specific 12	<b>p. A-64, Transfer Related:</b> Please update the second paragraph to "FOST 4 was prepared for nine parcels on TI and was finalized in November 2014" or something similar.	The Final SMP was revised to note the date of the Final FOST as October 30, 2014.